

The Journal of the United Service Institution of India

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of the

United Service Institution of India

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Will readers please note that the "Notes by the Secretary" feature now appears on page 149.

GOLD MEDAL PRIZE ESSAY COMPETITION

The Council has selected the following subject for the Gold Medal Prize Essay Competition for 1945 :

"During the present war there have been certain limiting factors to the expansion of the Armed forces of India as regards personnel, equipment and armaments. Consider in relation to any one, or all three Services, in what manner they could in future best meet their peace-time commitments within the probable limitations of post-war finance, and at the same time form a sounder basis for expansion if the need should occur."

Entries are invited from all commissioned officers of His Majesty's Forces, from gazetted officers of the Civil Administration in India, and from officers of the Indian States Forces.

Essays, which should be typewritten (double spacing) and submitted in triplicate, must be received by the Secretary, United Service Institution of India, Simla, on or before June 30, 1945. In order that the anonymity of each candidate should be preserved, a motto should be written at the top of each entry. A sealed envelope, bearing on the outside the motto, and containing inside the name and address of the author of the essay, must accompany each entry.

Entries should not exceed fifteen pages (approx. 8,000 words) of the size and style of the Journal. Should any authority be quoted in the essay, the title of the work referred to should be given.

Three judges chosen by the Council will adjudicate. They may recommend a money award not exceeding Rs. 500, either in addition to, or in substitution of, the Gold Medal, and will submit their decision to the Council. The name of the successful candidate will be published in the October, 1945 issue of the Journal.

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The Journal

of the

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Vol. LXXV

JANUARY, 1945

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The views expressed in this Journal are in no sense official, and the opinions of contributors in their published articles are not necessarily those of the Council of the Institution.

MATTERS OF MOMENT

DESPITE recent setbacks in Europe, we enter 1945 with firm faith and optimism, for a panoramic view of the World's greatest battle-fields gives convincing proof of victory. Though the only things certain in war are said to be unpleasant surprises and disappointments, we have reached the stage when we know victory is certain. The last twelve months have been months of initiative for the United Nations; we have the mastery of the skies, an impregnable position on the seas, and valour in our armies. Commanding that substantial power we shall make 1945 the year of victory. Sustained, even in our darkest hours, by conviction in the justness of our cause; invigorated by a leader whose oratory is equalled by his aggressive qualities; and inspired by love of our Empire and our heritage, we and our Allies march into a year of destiny.

A Year of Destiny

What were the highlights of 1944? Pride of place must go to the greatest amphibious operation in history; and to those who planned and took part in it; quickly following must be the brilliant strategy of the Allied leaders in the sweep across France and Belgium. In Italy what is probably the most cosmopolitan army in history has slowly pushed its way northwards; Russia has been cleared of Germans, and our mighty

Highlights of 1944

R.A.F. and the colossal American air force are daily destroying Hitler's war machine. Thousands of miles away from that front Allied armies have evicted the Jap from 30,000 square miles of Burma; the Americans and Australians are combining in a series of major actions to destroy the remnants of the Japanese Army tenaciously clinging to the outposts they captured three years ago; Japan is being heavily bombed; and the noose of sea power has been tightened around Japan itself. The sea war, in which there are no famous place-names and only the occasional thunder of big guns, is being won. The "Tirpitz" has gone; the German Navy has been rendered ineffective, and the U-boat is no longer a menace. Paris, Rome, Brussels, Bucharest, Budapest, Belgrade and Athens have been liberated, and the lamps of most of Europe's capitals, darkened since 1939, now shine with the flame of freedom.

* * *

What of the early post-war period? Only vision and courage and co-operative endeavour on the part of Allied and national leaders will win the social revolution which will sweep over the Continents when fighting is over. The peoples of backward countries, suborned by Axis propaganda, know

**The
Tasks
Ahead**

nothing of the measures to be taken to rehabilitate them, nor of the new democratic ideals which have been planned for them. Millions of human beings in Europe know nothing of the trends of political and social thought which have been born of the struggle. Their minds, poisoned by falsehoods, will have to be cleansed; the deceit which the conquered but rebellious peoples of Europe have had to practise to preserve their existence under the Gestapo rule of their conquerors may have become by this time part of their sub-conscious life. Proper and timely treatment will be needed to eradicate the basenesses forced on human nature by terror of torture and death. "Governments of all the talents" will be needed to instil constitutionalism into the minds of their subjects if the tragedies which have beset Greece are to be avoided. With victory, all these difficulties will arise; they cannot be overcome quickly, but the progress of mankind is measured by endeavour as well as by achievement, and perseverance and right thinking will guide us along the road which it is hoped we and millions of our fellow-creatures will tread towards dignity, greatness and peace.

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“I THINK a plan for our future Armed Forces should be a plan that does not look upon Germany as a possibly dangerous enemy for at least twenty years.” Thus spoke a member of the House of Lords in a recent debate on the post-war British Army. Admittedly, Germany’s position at the end of this war will be very different from that in 1918; her losses in killed and incapacitated may well be three times as

**Britain’s
Post-War
Army**

high as in the Great War; countries which have been ravaged by Germans may demand Germans to rebuild their cities; the treasures looted by Germany (and America estimates their value at £10,000,000,000) will have to be given up; and her industrial plant has been, or will be, destroyed. These facts make it certain that Germany will not be able to re-arm as she did in 1932, helped as she was by loans of £150,000,000 from the Allies. Nevertheless, we are dealing with a cruel and crafty nation, and one of the most important dangers to be faced may come from “secret” weapons. Vast improvements and discoveries can revolutionise war, as we have seen in the present struggle, and we feel there will be wide support for the suggestion that there should be established a Scientific Research body of international scientists, to counter the inventions of aggressor nations and to secure that our own armoury is up to date. More important, however, is the maintenance of a strong Force which, when needed, can march on a country which threatens attack and say “Stop.” It may mean conscription; it may upset the careers of young men; but if it assures peace it will be well worthwhile.

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OFFICIALDOM has in this war embarked on many publicity campaigns, one of which emphasised the dangers of “careless talk.” To judge from the “security-mindedness” of Service personnel and civilians alike, it has been a success,

**Silence
is
Golden**

especially in Great Britain. There the teachings of one advertising campaign have been well applied, for even such enormous operations as those in the Normandy and North-African landings achieved surprise in large measure because widespread and constant advertising had convinced people of the soundness of “keeping their mouths shut.” Here in India similar caution is essential. Japanese spies in India are no figment of the imagination any more than were German spies in Great Britain. The Japs have their contacts in India just as the Germans had in the U. K. and America. The Japs do not

send round a man with protruding teeth and horn-rimmed glasses, nor can any thinking man looking around him fail to see those opportunities which the enemy would grasp if he had the chance.

* * *

"Next of Kin," one of the finest military training films yet produced, gave a vivid picture of how the German acquires

**Lessons
to be
Learned**

information, and practically every lesson that film taught applies with equal force to India. The sentry who failed to ask for a pass or identity card is just as guilty as the man who

discusses military matters over the phone without checking the identity of the man to whom he is speaking. (Incredible as it may sound, it *does* happen.) Another source of leakage may be the supplier of goods to the Mess; everyone is anxious to square up accounts before a move, and the Mess Secretary is no less anxious to do so than the individual officer, with the result that, especially in India, news of an impending move can come from the most surprising places. What is one of the main causes of bad security? It is vanity—the speaker's vanity in trying to impress someone else with his own importance. Finally, there is another personal angle. If any Serviceman feels that he may have revealed a secret, it is better that he should report it and face the music, rather than live for years with the lurking suspicion that it may have led to the death of one of his brothers. This question of security is a duty thrown on every officer and man in the Services. If it is obeyed it brings no medal—but it can and does inculcate a sense of satisfaction in playing even a small part in the victory which is to come.

** * *

A DDDED recognition of the importance of welfare work for the troops in India has been amply afforded by the report of Lord Munster on his recent tour of India and S.E.A.C. Army welfare work is essentially a task

**Welfare
in
India**

for enthusiasts, and everyone who has had contact with the officers, high and low, responsible for this side of Army life will testify to the eagerness, vision and sympathetic consideration with which they have put welfare "on the map" in India. Difficulties and shortcomings due in large measure to war risks have been encountered, but whatever critical and mainly uninformed newspaper critics may say, the job has been done with a will and with success.

** * *

THOUGH it had little direct reference to Lord Munster's mission, we feel constrained while on the subject of amenities to refer to the unfortunate comment in a London newspaper on the hospitality—or lack of it, according to that

**A Matter
of
Hospitality**

newspaper,—extended to British soldiers in India by British residents. It resulted in much correspondence in *The Statesman*, which is to be commended for fastening attention on one aspect of the subject which appeared to have been overlooked by readers—the gratitude of the thousands of British soldiers whose experience did not coincide with the journalist whose nose for news led him to cable his views to his newspaper. That gratitude is no ephemeral gesture; it is real and lasting and sincere. In this connection we should like to pay tribute to at least one civilian community in India which is doing yeoman work in entertaining British soldiers. It comprises every European living in Kalimpong, a hill station a night's journey from Calcutta. That hospitable British colony, remote from the Army (there is not even an S.S.O. in the town) accommodates and entertains soldiers in an atmosphere of complete freedom, far removed from war, and in surroundings and houses which are as near like those at Home as are to be found in India. Those people, many retired from business, do their work out of the limelight; they do it cheerfully, and (as one put it) as a part of their war work; and they have earned the thanks of thousands of our soldiers. Their generosity and warm-hearted friendliness came under our notice recently when passing through Kalimpong, and it is a pleasure to pay this public tribute to them.

* * *

Few spheres of an officer's life have such wide scope, as welfare, and an illuminating instance of how one officer's

**An
Officer's
Initiative**

initiative can be turned to account occurs in a B.G.H. now in the forward area, but recently in Bareilly. There the Commandant, finding discussions among the staff and patients were so warmly received, decided to instal a hospital broadcasting system. He appealed for help to the Commissioner of the Rohilkhand Division, Mr. M. H. Nethersole, who, with his friends, subscribed the money to purchase the apparatus. As a result, discussions were relayed to the wards by loudspeaker, and patients were then invited to send in questions on the particular subject to a Brains Trust composed of patients

and staff, the meeting of the Brains Trust also being broadcast to the patients. These talks not only helped to relieve the trials of hospital life, but, by the stimulus and distraction they afforded, aided considerably the rehabilitation of the patients. The hospital in question has a tradition going back to Dunkirk, and one of the talks they have heard from their Commandant, Colonel H. F. Humphreys, on "Peace Terms for Germany," is reproduced in this issue.

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THE Fighting Services of India are playing an important part in fashioning post-war India. In the engineering field particularly the experience gained by tens of thousands of soldiers and craftsmen will have a profound effect on the

**Engineers
and
Post-War
India**

industrial life of the country. From the driving of tanks to the making of intricate machine parts, Indians in this war have shown a skill which augurs well for their future after the war. Will they seize this golden opportunity to raise their standard of living? Opportunity there will be, for we are told that in the electrical field alone it is planned to increase generating capacity by 700,000 kilowatts within the next four or five years, which in itself will give openings for practically double the number of electrical engineers; moreover, as new industries are established, each one will require its quota of engineers; roads, bridges, railways, port extensions—all will present employment to ex-soldiers who have had practical experience of engineering in this war. The subject is too vast to deal with in a brief editorial note. The provision of teachers for young students; financial support of engineering and technical colleges so that teachers may be remunerated on a scale comparable with that offered by industry; an improved system of technical education; closer co-ordination between industry and university for the senior posts; and a long-term policy in engineering education are all important factors for an India which will rise industrially. It is opportune that India has a live Institution of Engineers, whose influence and assistance will help forward the future of those who have chosen this profession. But in the early stages the country can count itself as fortunate in having at hand so many men trained under the best auspices in all Services. Their knowledge and experience will lessen the risks of industrialists, who can embark on new ventures expeditiously and with well-founded confidence.

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THE bestowal of the G.C.B. on H.E. General Sir Claude Auchinleck, Commander-in-Chief in India, has afforded great pleasure to officers and men of all Services in India, and especially to the Indian Army, in which he has served for

42 years. His keen personal interest in the sepoy is no facade, for in his public speeches and on innumerable inspection tours throughout the length and breadth of India he has never failed to pay handsome acknowledgment to the fighting skill and courage of India's soldiers. They, too, have a warm admiration for him, and for his work on their behalf in India and in the Middle East.

Corrigendum.—

An unfortunate misplacement of lines occurred on page 470 of the October, 1944 issue of the *Journal* in the article entitled "What's In An Indian Place Name?" In order that readers may correct their copies, the following accurate rendering of the lines is appended:

Púr, púri (pore); Nagar	"city" or "town".
(nagore)	
Kot, Garh	"fort".
Ghát	"landing or bathing place".
Hát (hati)	"market".
Ganj (gunj or gunge)	"store", "mart".

The second article of the series appears on page 33.

“PENNY WISE, POUND FOOLISH”.*

BY COLONEL J. F. R. FORMAN, f.s.

“In the past it has been the policy that the training of the armed forces of the Empire should not be related to any particular type of terrain. Discuss this policy in respect of both land and air forces in the light of experience gained in the present war.”

LET IT be said at once—the policy was sound. With a small army and air force and a government with no thought of aggression, what other policy was possible? We could hazard a guess at some potential theatres of war—Western Europe, the Middle East, possibly Malaya—but no more. Where was the prophet in 1939 to say that, within four years, our army or air force, or both, would be fighting in Norway, Russia, Crete, Sicily, Tunisia, China, Burma, the East Indies, New Guinea and the Solomons? The Earth's the limit in this greater World War.

No: where the policy failed—if it did fail—was in the fact that money was not available in sufficient quantity; our forces were too small; they were comparatively ill-equipped—especially the army; and funds for training were meagre. Moreover, in certain respects (in both services), the policy was not fully put into effect: the army failed to train adequately for fighting in at least one type of terrain; and the air force gave too little attention to the principles of mobility and co-operation with the other services.

The corollary of the subject matter is, I presume, that our army and air force were meant to train to fight in any—or in the case of the air force it would be more correct to say from any—type of terrain. For the army, that means “civilized” terrain, *i.e.*, country in which there are good communications, large industrial towns, plentiful supplies and usually a temperate climate—for instance, most parts of Europe; and mountainous country, desert country and jungle—in all three of which the advantages shown against “civilized” terrain are conspicuous by their absence.

For the air force, it means operating from bases in highly-developed countries, with all the attendant advantages normally available in such countries; or from inadequate strips in mountainous and jungle country, or wind-swept, dusty, scorched air-fields in the desert. In addition, there is one other very important form of training that does not conveniently come under any of the above, namely, training in amphibious warfare, which will, however, culminate in operations in or from one or other of the types of country given.

* This is the winning essay in the 1944 Gold Medal Essay Competition of the United Service Institution of India. Details concerning this year's competition can be found elsewhere in this issue.

Now let us consider where, how and why we failed, in so far as actual training was concerned. We will take the army first, and we will, for the time being, not flog too mercilessly the financial horse (or is mule a better description?). At home, considering the restricted areas available, it is fair to say that training for "civilized" warfare was carried out thoroughly.

The Army, such as it was, was well trained—very well trained—in M. T. and all that M. T. implies. Staff training was good on both the operational and administrative sides. The Staff College and sundry large paper exercises for our staffs saw to this; and, on occasions, more frequent as time went on, commanders and staffs were given the opportunity of handling forces more or less commensurate with those they would lead and direct in war. Other officers were trained to a standard favourably comparable with those of foreign armies (*pace* Auspex).

The men were reasonably, though not sufficiently, tough, and were competent in the handling of their weapons, and in minor tactics and field-craft. Our old, time-honoured military virtue of discipline—and by that I mean the somewhat "stupid" type of discipline that made our troops in 1914-18 (and before) walk straight to their front, or defend a shell-hole in Flanders mud till all had perished—was rather at a discount. This was foolish, since by and large it was this particular virtue—coupled with skill-at-arms—that had always won us that vital "last battle" in the past.

All in all, however, our home army was well trained for war in Western Europe. Other forms of warfare were barely considered. Indeed their practice was, to all intent and purpose, impossible. Mountain, desert and "bush" warfare had small sections allotted to them in our little books, but they were fuzzy-wuzzy types of warfare for consideration by "catch-em-alives" like the Indian Army, the K. A. R. and other "coloured troops."

True, the Staff College went to the Royal St. Davids at Harlech and, for one glorious week, the I. A. instructor puffed out his chest on the slopes of Cader Idris; but—it was summer in North Wales, there was a very nice golf course and excellent Welsh mutton and beer and, anyhow, a chap ought to be thinking of tanks, not mules, with that carpet-chewing mountebank just across the way. So it was all a bit of a joke, though a nice joke withal. Amphibious warfare was studied in great detail in theory by the Trade Union and its apprentices at the three staff colleges, but I can recall few occasions when it was put into practice and then only by small forces.

A great deal of the blame for these shortcomings can be laid at the stable door of our old friend the financial mule, but I have promised not to give him the whacking he deserves—yet. And let me explain here and now that when I say "Finance," I am not referring to the officers of the Treasury and their brothers in India, who, poor chaps, are only doing a distasteful job to the best of their ability; no, I mean the lack of funds for the armed forces generally which was prevalent between 1920 and 1939, for which most of the citizens of the Empire should bear some of the blame, though our leaders must shoulder the main responsibility.

In India, on the other hand, training was more varied. With the modicum of equipment available, we had at least started to train for "modern" war. We had little equipment and not much M. T., and what we had had to be used sparingly, but mechanical warfare was studied by commanders and staffs and, to a lesser extent, by other officers and troops.

In addition, thanks to the Faqir of Ipi and his predecessors in the hierarchy of "senior umpires" for the Indian Army's fun and games on the Frontier, nearly all our troops knew how to fight in the mountains, with one hand tied behind the back as my friend "Auspex" truly says.

Why, we even used tanks; we were sometimes moved and supplied by air; we had evolved a method (and not a bad one either) of direct air support. Our tactics were probably not suitable for a mountain war against the Germans (as we found out in Norway and Greece), but at least our men were tough, good at improvisation, skilled in the use of weapons and the management of animals, and able to appreciate the tactical niceties of mountain country. It was all "fighting," and fighting against a cunning opponent on his own ground. The troops who had done it had a great advantage over those who had never heard a shot fired in anger.

Then, due to the terrain in many of our training areas, we did, though we hardly realized it at the time, know something about desert warfare. Any comparatively unrestricted exercises in the plains of India in good weather, with the consequent ability of being able to move fairly freely away from main roads, bears some resemblance to desert warfare; movements can be big and wide, dust gives away day movement, water is often a problem and cover is scarce. And, as our intelligence all pointed to our fighting in the Middle East, we felt that mountain and desert warfare ("extensive" was the word in vogue then) were just about what the doctor ordered. (Give me that stick and lead on that mule just for a second—our equipment, our training funds—Whew! No, I must restrain myself.)

But our intelligence was incomplete, and Japan, and the likelihood of fighting in jungle country, were ignored (remember I am speaking about before the war). Later, the troops in Malaya trained, though insufficiently, in jungle warfare, and, in India, a brief pamphlet—afterwards proved to be not at all a bad pamphlet—was produced, but unfortunately its contents were hardly practised at all.

As in England, amphibious operations were studied in theory only and, in effect, only by the Staff College. The training was not at all bad so far as it went, and must have stood many officers in good stead in this war. But it is curious and blameworthy, when you look back on our military history and note the positions of Britain and India *vis-a-vis* what were then considered likely theatres of war, that this form of training was not studied and practised extensively.

Our C.I.D. and its satellite the I.D.C. would appear to be responsible here, and I can again see the wagging ears of our friend the mule calmly chewing his fodder of lost opportunities. But, generally speaking, the Army in India in 1939, always allowing for out-of-date and insufficient equipment and indifferent intelligence, was, largely due to the Frontier problem and fine training areas, pretty well trained. Its exploits in the Middle East bear out this contention.

Other Empire forces will not be considered in detail. Most of the Dominions maintained only cadres of regular troops and the bulk of their forces were akin to our Territorials. The few long service corps, such as the K. A. R., were probably as well trained in their own line of country as the Army in India.

From a study of what has already been written, it is clear that the policy shown in the subject was sound in so far as the army was concerned. It was the lack of numbers, paucity of equipment and the somewhat half-hearted execution of the policy that were at fault.

The Royal Air Force were similarly handicapped by shortage of numbers and equipment. It was not until about 1934 that any expansion worthy of the name was agreed to and, thereafter, it was a long time before modern aircraft became available, and then in insufficient numbers. Besides, they were faced with one over-riding problem—the defence of Great Britain—and, due to the shortage of equipment, etc., the solution of that problem, in default of all others, was vital, in the proper sense of that much misused word. By ceaseless energy on the part of all ranks, the problem was solved—just; and its solution saved the Empire, make no mistake about that. In view of this, it is somewhat ungracious to criticize their lapses: but they were lapses, and at least some of them need not have been so serious.

They, like the army, had the good fortune to have units—woefully few and ill-equipped—stationed in many parts of the world. They had, therefore, the advantage of possessing pilots and crews trained in operating over all kinds of country, mountainous, desert and jungle. Their ground crews, too, had experience in the maintenance of aircraft under various climatic conditions—heat, cold, wet, sand and dust.

What they lacked was real mobility. Given good communications and plenty of landing grounds—as in Britain and Western Europe—they proved their ability to move reasonably quickly and operate again from new and often indifferent airfields in a comparatively short time, though even then they were usually dependent on the army to help them out with protection, labour, supplies and transport.

In undeveloped or semi-developed countries, however, their mobility was practically nil. They were anchored, with a length of chain depending on the range of their aircraft, to their slap-up bases. Operating (as opposed to just landing and taking off after, say, refuelling) from anything but well-equipped aerodromes was practically impossible. The rapid moves necessitated by quick-moving, modern operations just could not be undertaken with success.

They could neither prepare the equivalent of the modern strip or satellite quickly, nor—even if they had been able to—could they transport all their ground personnel, bombs, ammunition and "nuts and bolts" to them. They had insufficient M. T. and practically no transport aircraft, which, in view of our insignificant and water-bound civil air fleet, was a serious deficiency. They were barely conscious of the potentialities of air supply at all. They were, to all intent and purpose, immobile.

Their second big failing (and I know many airmen who agree with this) was not so much their lack of suitable aircraft for co-operation with the other services and, consequently, lack of training with them, but their disinterest in the subject. Reconnaissance for the Navy or Army was dull work compared with fighting or bombing. And, in any case, there was a feeling that the other services were a bit "bow and arrow" and that it was bombing particularly and fighting that would win the war; so why worry?

No one blames the actual pilots. Those who worked with the Navy (even after the Fleet Air Arm changed hands) and the Army put their backs into it; and, when war came, those doughty but pathetic aircraft, and their gallant crews—the Ansons and "Lizzies"—did noble work.

No; it was those at the top who must take the blame. How many of them really took any interest in this "side-line?" Who, among them, had given any real thought to close support of the Army, or the Navy for that matter? Precious few. And yet the German methods were known and, in spite of the Battle of Britain, came perilously near winning the war. Co-operation with the other services was, in the view of some at the top, a poor relation and was treated in the way that those faded spinsters and drunken ne'er-do-wells are normally treated—pretty shabbily.

It was a grave error, but things have improved, and the army has nothing but praise for the airmen on the Western Front, in North Africa, and Italy, and the Navy is presumably satisfied now that it has a big say in the operational control of Coastal Command as well as a hand in the strategical selection of Bomber Command's targets.

And so, by and large, one can say that the Air Force was, before the war, superbly trained for its most vital task, that it had a fair knowledge of operating under differing and difficult conditions from many types of terrain and in all sorts of flying conditions, but that it had tended to ignore two very important aspects of training, mobility and inter-service co-operation.

But, in case I be accused of carping criticism, let me say again that a late start and inexcusable parsimony made it very difficult for them; though the late start unexpectedly and indirectly helped to win the Battle of Britain in that we fought it with aircraft designed and tested between 1934 and 1939, whereas the Hun, who had gone into mass production earlier, was equipped with aircraft that were slightly out-of-date, if not obsolescent. But don't chalk that one up to the high-ups; enter it on the credit side of the designers, test-pilots and "the few" to whom the many owe so much.

Now before I get down to the job—the much harder job—of planning for the future, let us shoot down in flames the training policy opposite to that which was decreed for pre-war preparation. By that I mean that we should have trained and equipped parts of our army and air force to fight in and from particular types of terrain. For instance, our home forces might have been trained for war in Western Europe; our Middle East and Indian forces for war in desert country; our Far Eastern forces (such as they were, even including Australians and New Zealanders) in jungle war; and so on.

Is this sound with limited forces? What would have happened if the war had been confined to one type of country only (and who was to say it would not)? The training problem would not have been insoluble; the troops of a long service army and air force could have picked up another form of training reasonably quickly; but the equipment and transport would have been wrong. We should have been forced to re-train and re-equip all those who had been trained in, say, three types of warfare to reinforce the inadequate quarter trained in the fourth type. Huge continental armies can do this, and, in fact, do it satisfactorily, but with small forces it is obviously dangerous.

As a small example, the maintenance of a special force for defence of the Indian Western Frontier was a failure. Not only did reinforcements, called up for large-scale operations on the Frontier, know little about the job, but, when the 1914 war started, the special force itself was needed for bigger game—and was incidentally not well suited for it—and troops ill-trained in mountain-tribal war had to take their place.

It is clear, therefore, that a long-service, small force (army or air) should be trained for all types of warfare. The fact that it can do so is one of the main advantages it has over large, short-service, continental armies. But the equipment and transport required for war in *every* kind of country must be available. For instance, with the policy laid down, we were surely very short-sighted and foolish to muster out nearly all our animals when we did. Such action was, in fact, contrary to the policy.

And now, plans for the future, which is, I presume, what the Council of the *U. S. I.* want from those who attempt to write papers on this subject.

First, some assumptions. There is, I fear, little hope of our Empire armies remaining large for very long after the war. The calls of the Navy and the Royal Air Force, of industry and land—let alone the natural disinclination of our peoples as a whole to serve in the army in peace-time—will forbid it. Some form of "national service" may be imposed, but the professional element will remain the backbone of the army in future as it has been in the past. The Air Force, on the other hand, is likely to be better off, and, for a time at any rate, is certain to be powerful in strength.

Next: I assume that—again for a time—parsimony will be held in check, and that any reasonable demands to ensure high

efficiency will be met (I assume this with a prayer in my heart; actually I view with some alarm the longevity and tough hide of that wicked mule). Then I take it that there will be a mass of shipping and aircraft in the world that our wise rulers will wish to keep in fighting trim, but which will be surplus to, or unsuitable for, ordinary civilian needs.

Next, I assume that our national policy will still be non-aggressive (how much easier and what fun it would be to be blatantly aggressive for a time!). Finally, I assume, with bated breath, that our leaders, political and military, will be as long-sighted and co-operative then as they appear to be now.

The policy—rather an anti-climax this!—must remain the same. Navy, army and air force will not restrict their training to any particular line of country or, to be more explicit, they will train to fight anywhere. Our intelligence *must* be accurate, so that we can, at times, concentrate more on one potential theatre of operations than on the others—not, however, to the exclusion of the others.

The next point—and I look upon this as truly vital—is that there must be one service and not three. At the top there must be a Commander-in-Chief and, to settle that thorny problem straight away, I nominate the one obviously suitable candidate—H. M. The King. We must have a Ministry of War (not Defence) and its minister must again be the head man, namely, the Prime Minister: and this must be his most important duty, as it is now. Under him, there will be three deputy ministers—naval, military and air—and three chiefs of staff.

All the way down, there will be mixed staffs, the senior members of which will be trained at a super war college. Commanders—where forces are naval and military or military and air, etc.—will be chosen from the force that is predominant in the area. The staff college, too, will be a joint affair, with three wings working in closest touch.

The name of our armed forces is immaterial: let us call it The Service. We will have one uniform. Terrible! Why? All the three services are continually changing their uniforms now, so why not a change to a common uniform?

I would like common titles, too, and, in order to cut the cackle, let our first Chief and our first Minister choose them. I can't resist giving my advice: so, cutting out certain superfluous ranks, how about:—sub-lieutenant, lieutenant, major, captain, commodore, general, admiral and marshal? Or, if that is too much of a hotch-potch, what about something strictly practical and dull—on the Russian model—just plain 1st officer down to 8th officer?

I have not included some quite nice and suitable titles like commander and leader, though the latter may be thought to smack too much of Fascism and kindred cults. The point is to have them all the same and to eradicate some of the more far-fetched, cumbersome titles and annoying half-ranks that have crept in comparatively recently. It is surely a confession of weakness to

have to publish tables of comparative ranks, not only for our allies and our own civilian public, but even for men actually in the fighting forces. Non-commissioned titles should also be common throughout The Service.

Now for the training of the army. There are two prerequisites of success. First, all troops must be stationed in places in or very close to good and freely usable training country. Apart from certain naval bases abroad (in which the troops gain other training advantages), this should not be impossible.

In the future, the movement of troops by air and/or road or rail to "strategic" points, where, as in India, it has been thought necessary to station them up till now, should present no difficulties: in fact, there are definite training advantages in doing so. Money will be required to bring this about. Old barracks, cantonments and water-supply systems will have to be scrapped and new ones built. But it must be done. In India, it will mean a definite trend to the centre and south of the country where, not only is the ground better, but the climate allows of all-year training too, even for British troops.

Secondly, units must be collected into formations of at least brigade group size, including all supporting arms and administrative units, and the air force must be adjacent and available for collective training. Nothing is more detrimental to efficiency than the habit of placing units in one-unit stations. There is no competition—the best spur of all to efficiency. Brigades must be formed, if possible divisions too, and the units in them must be kept together. On relief, the whole formation—infantry, artillery, engineers and administrative tail—moves together.

No one training area will, however, provide facilities for all kinds of training. In one area (even in one country) the ground and general conditions will be suitable for training in one or, at most, two forms of warfare. Other training will of necessity be theoretical, which is not sufficient. We must, therefore, keep our formations moving, not only within any one particular country, but between them too.

Thus, in Britain, a division will train for, say, a year in the South in Western European warfare. It will then move to mountain country in Scotland or Wales, where it will train in mountain warfare. It may then have a spell near some naval base, where it will train, primarily, in amphibious operations, and so on. Finally, it will be moved lock, stock and barrel to, say, India, where it will spend a spell on the Frontier (active service conditions guaranteed throughout the ages!), a period in Assam for jungle warfare, a tour in the Deccan for open warfare under Eastern conditions and, perhaps, a tour with the Navy again in Ceylon, learning the particular problems of the East so far as amphibious operations are concerned.

Frequent moves—always as a formation and wide experience. Money again, but money well spent. As the political situation varies, so will we attempt to keep pace with it by training our formations primarily—not wholly, since our political intelligence is not infallible—for war in the area of the potential threat.

All the Empire countries must come in on this scheme. I am assuming that the Dominions will, after this war, keep in being at least small standing armies. And so, we shall find formations of Canadians in Britain, British troops in Australia, New Zealanders in India, Indians in the Middle East and so on. We shall, thereby, ensure that our common doctrine of training is carried out, speed up valuable interchange of ideas, encourage healthy rivalry, appreciate the worth of those who dwell in distant parts of the Empire, simplify exchanges of officers and, finally, and this is most important, strengthen the existing bonds and, indeed, forge new links in the chain of Empire unity, on which the peace of the world will largely depend.

The ships and aircraft that I have assumed will be available will be almost continuously used on these interchange trips. There may be ships for two divisions and aircraft for two brigades in use all the time. Apart from the immediate advantages, consider the value to the Empire as a whole of these fleets and their trained crews and connected shore and ground personnel in time of war. Not only will they be available to rush reinforcements to threatened areas, but they will be fitted for such tasks and trained in the handling of service cargoes.

Such moves will always be carried out under war conditions. Ships will sail in convoy; aircraft will fly in formation; escorts, naval and air, will be provided; attacks will be made *en route*. When passing British territory, amphibious operations can be carried out, giving training to those in the convoy, as well as the defending forces on and operating from the shore. Thus voyages will not only result in the essential carriage of troops from A to B, but will also provide a period of most valuable training.

Some troops will inevitably be locked up in the defence of important naval bases (not air bases, as it is assumed that the R.A.F. Regiment—or its successor—will remain in existence), but these must be reduced to a minimum. Possibly the Navy will consider the increase of Marines for this task and, of course, full use must be made of local volunteer forces, the ranks of which, it is hoped, will be well filled after the war. Such regular army troops as are needed must be changed as often as possible and, during their tour of duty, must take full advantage of the opportunities available at such places for training in amphibious warfare. It is incredible that all three branches of The Service will not leap at the chance to practice such training after the experiences of this war.

Journeys from one type of training area to another within any particular country can also be made valuable. Formations will move complete and worth-while exercises in rail, road and air moves can be devised. Exercises with other formations *en route*, including such little practised operations as river crossings, can be arranged and, generally, the move can be made as useful a training period as any.

Certain items of equipment and transport, *e.g.* landing craft, mules and other *jangli* forms of transport suitable for specific

types of operations only, and even certain weapons such as mountain artillery, must "stay put" in the areas where they belong; but the great bulk of our equipment and transport is nowadays common to all types of warfare and will go along with its formation. This, of course, will not apply to heavy equipment such as artillery and lorries in an inter-country relief, when such equipment can be taken over on arrival from the relieved formation.

By these methods, all officers and many of the troops (probably the majority of the N.C.O.'s) will, in a fairly short time, be welded into fixed formations, which are accustomed to operating as formations, and will be trained for warfare in any part of the world—or at least in two or three of the types that I have specified. Tours outside the home country should be limited to—say—six years. Thus an Australian division, having been stationed near Sydney for two years, training in "civilized" and amphibious warfare, might then move to South India for two years, followed by two in Assam and two in the Middle East, thereafter returning once again for a reasonable spell in the homeland. At the end of its foreign tour, it would undoubtedly be a far better formation than if it had stayed at home all the time.

If a proportion of the men who finish their colour service during their foreign tour, wish to settle in their temporary home, so much the better. Migration between the various parts of the Empire of fit, disciplined men, such as our Service men will be, is surely one of the best methods of holding our Empire together. The very valuable but pathetically infrequent exchange of officers between various armies would be made simple and should be used to the full, and spells of duty with the other branches of The Service, *i.e.* naval and air, must also be arranged as a regular feature of service.

It should, in fact, be the rule that every officer with between fifteen and twenty years' service (at which age he should be getting command of his unit) has done at least six months with the naval and air branches and with two "foreign" armies. If he only succeeds in picking up the jargon and making some friends, his time will not have been wholly wasted. If, on the other hand, he learns to fly or navigate an aircraft, to handle a L.C.A., to drink beer like an Australian, to talk a little Urdu or Swahili and, perhaps, he marries a Canadian girl into the bargain, the sun certainly will never set on this Empire of ours: and was not our Prime Minister expressing the views of all right-minded Britons when he said that he, at least, had no intention of speeding the advent of that twilight hour?

(Much of what I have said applies to the Air Force just as much as it does to the Army. Dressed in *the* uniform (it's all right, they shall keep their wings!), with the same titles of rank—instead of the somewhat grotesque ones invented some twenty-five years ago—serving under one C-in-C., one minister and mixed staffs, and with frequent attachments to other branches, they will continue the magnificent co-operation which this war has taught us all is a prime essential to victory.

No longer will there be somewhat degrading squabbles over Fleet Air Arm and "Air Control." We shall, in truth, be all of

one companie." Not that the squabbles were the fault of the Air Force only: far from it. It takes two to make a quarrel and, in both the cases cited above, there was great force in many of the Air Force arguments.

What the Air Force must insist on, however, is the widest possible exchange of squadrons between countries in which flying and ground conditions vary. The pre-war, feeble trickle of personnel is not enough. Subject to technical difficulties—of which I have little knowledge—whole squadrons or, better, whole air formations, must move round from country to country in exactly the same way as I have described for the army, so that, when war comes again, as it most certainly will, the Air Force will have men—crews and ground staff—used to operating in all conditions.

There is this difference however; the air formations will fly from country to country carrying their men and equipment along with them in their attached air transports, thus ensuring the keeping open of communications which will be vital in war. The means to do this are now being fast developed and must not be allowed to fall into disrepair.

In addition, frequent exercises with the army branch in advance and withdrawal exercises, including the preparation and destruction of strips and other temporary landing grounds, must be carried out: and, with the naval branch, exercises including the carriage and operation of non-F.A.A. aircraft in and from carriers, an operation still sometimes necessary for short range aircraft in certain theatres of war. In this way, the hard-learned lesson of mobility of air forces, first solved by the Germans, will not be forgotten.

Truly mobile air forces can afford to group themselves in large numbers in strategically sited areas, thus simplifying administration of all kinds, but the demands for training of the naval and army branches must be met. All squadrons of suitable type must be practised in this inter-branch co-operation in turn, even though, as seems probable, the naval branch has its own aircraft and the army, perhaps, its own irreducible minimum for purely army reconnaissance and transport purposes.

All my schemes depend, of course, on our Service having the very best equipment, in the largest sense of the word. This, and the cost of the schemes themselves, spell *£ s. d.* But does not modern war spell the same, and in astronomical figures too? Moreover, unlike peace-time expenditure, it entails unpriceable horrors of misery and devastation. I have no idea what forces we—and the Americans too—would have had to keep up to prevent this war ever starting. Perhaps armies and air forces of twice the size that we had, perhaps three times. Would that have cost us in treasure, "blood, tears and sweat" more than the war has cost us up till now and will cost us in future? Of course not.

And even if it had, would it not have been worth it? Think of the misery, squalor and hate that would have been prevented, and think of the demoralization from unemployment that would have been avoided. Somehow or other parsimony in matters vital to the peace of the world must be rooted out in future.

We can play our part. Let us not insist on a very large Service. Let us rather pitch our demands moderately, but fight tooth and nail for one hundred per cent., hard-hitting efficiency. With the King as our C-in-C., and the Premier as our Minister, we have a good start, but more may be needed. Pressure must, if necessary, be exerted by The Service chiefs themselves. If necessary, agreement must be forced by resignation or its threat. Robertson and Haig did it, but how often has it been done since?

There will be no room for time servers. It may seem terrible for our marshals to exert political pressure, but what of it, when our existence is at stake? What is the good of saying later, "We did our best, but we were overruled?" It's the answer of a weakling and The Service will have no room for such. The Beveridge Plan, or its successor, will cost hundreds of millions a year, but what good will it be if, in 1960 or 70 or 80, our children are wiped off the face of the earth or ground down in slavery by the new Feuhrer and his jackals, the new Duce and the new All-highest of Nippon? The answer is clear.

Let us then spend a few hundred millions of the Empire's great wealth on The Service too, even if the income-tax does stay at seven or eight shillings in the pound. Let us realize at last what our great leader and many thoughtful foreigners know now, but which is still hidden from most Britons, namely, that we are members of the most successful experiment of all time—the British Empire or Commonwealth or what you will—in which true democracy and, generally speaking, unselfish tutelage of backward peoples are the paramount principles; and let us get into our heads the fact that membership carries full responsibility. It saved the world in 1940; it is still playing a leading—if not *the* leading—part in that salvation. We are all fighting for it now; let us continue to do so when peace comes.

The Raj Rifs

Reviewing "The Tiger Kills," *The Times Literary Supplement* says:

"Many units of the 4th Division are often singled out for appreciation, and some readers may think that too much of the narrative is devoted to the exploits of the 1st Battalion 6th Rajputana Rifles, otherwise known as Wellesley's Rifles, or more profanely as the Raj Rif.

"There was good reason for that. The authors do not often turn back the pages of history; had they done so in this case they could have pointed out that this is the oldest rifle unit in the Indian Army.

"In North Africa it was really celebrating its centenary as a rifle regiment, for it had been converted to that form in 1841, and a few years after that showed its mettle in a memorable forced march and assault on Multan."

GONGS AND THINGS

By "MOUSE"

AS DISTINCT from the domestic problems of beer, work, and women, what matters exercise an average officer's mind most? I would be inclined to say campaigns, promotion, pay, and, if *p.s.c.*, jobs. These thoughts, overshadowed occasionally by controversies of military procedure regarding the correct method of Easing the Mark 4 Spring, or of wearing the Mention Emblem, are always with us.

This opinion does not necessarily imply that many officers are not far more interested in higher European strategy, Lower Burma tactics, problems of post-war reconstruction and the future of the Indian Army; these weighty affairs have their students to whom medals, promotion and pay are so much dross, trivial concomitants of their profession, hardly worth the paper and forms used in their creation and promulgation. These students are, however, more rare.

The history of medals, promotion and pay in the British and Indian Armies would fill several volumes without being exhaustive. It would possibly be exhausting and tedious, so I will confine myself to some observations on these matters as they existed in England and India before the Mutiny, 1857. The information is taken from "Hart's Army List, 1850" "The Bengal Army List, 1857" "Ribbons and Medals" by Dorling and, of course, Fortescue.

The impetus given to medals and decorations of all kinds dates from 1847, when a Naval and Military General Service Medal, 1793—1840, was granted after considerable agitation in Parliament. Heretofore, exclusive of Waterloo, only Senior Officers were granted a gold medal with a gold clasp for their part in campaigns and actions; junior officers and the rank and file got nothing.

The Naval medal had 230 bars, which may be one of the reasons why sailors commence their medal-ribbons on their collar-bones. One of the recipients of the first Bar "1st June, 1794," was Daniel Tremendous McKenzie, who was born on board H.M.S. TREMENDOUS a few hours before the action began. The Military G. S. Medal was less lavish and had only 29 Bars, which excluded the campaign in Egypt of 1801.

For those who feel aggrieved at missing the 1939—43 Star when so many less meritorious people wear it, it may be of comfort to know that permission to wear the medal for Egypt, 1801, was granted in 1850 for those officers and men "who are still alive." This G. S. Medal covered all the famous engagements of the Peninsula War, but also had bars for "Java, 1811," and for "Fort Detroit" and "Chrystler's Farm," North America. The ribbon was the same colour as the present D.S.O.

The award of the Waterloo Medal was not open to any criticism. It was awarded only to those officers and men who had been at Ligny, Quatre Bras or Waterloo on the 16th, 17th and 18th June, 1815. (Such officers were also granted two years' additional service.)

The first India Medal was awarded for various campaigns fought between 1799 and 1826, and has a glamorous Bar inscribed "Poona." Between 1826 and 1854 the issue of individual medals for battles in Afghanistan, Sind, Gwalior, the Sutlej and the Punjab became uneconomical and a burden on the Finance Department so, on the suggestion of Lord Dalhousie, an Indian General Service Medal was instituted in 1854 which lasted until 1895 (23 Bars). It covered the local war fronts from Persia to Perak.

During the period under review, *i.e.* until 1856, when the Victoria Cross was instituted, honours and decorations according to modern standards were meagre. The Army Lists show only thirteen decorations, all outside the range of ordinary mortals. The Orders of the Garter, the Thistle and St. Patrick, three ranks each in the Orders of the Bath and St. Michael and St. George, and three ranks in the Order of the Royal Hanoverian Guelphic Order, designated G.C.H., K.C.H., and K.H. The thirteenth Order was K.C., Knight of the Crescent.

In our present Army Lists recipients of the Victoria and George Crosses are properly distinguished by the prefix "O." or "G. C." in Gothic capitals before their names. A similar device was used in Hart's Army List, which prefixed entitled officers' names with the Gothic capitals "T.B." and "A." to denote their participation in the actions of Trafalgar, the Peninsula War and Waterloo. Thus: "H.M. Field-Marshal His Grace Arthur, Duke of Wellington, K.G., G.C.B. & G.C.H." "B. Lieut-General Sir Charles J. Napier, G.C.B., 22 Foot, General and Commander-in-Chief in the East Indies."

(This is a pretty practice which might or might not find favour when this war is over. It would certainly lead to contentious arguments, which are always enjoyable, as to which actions deserve a Gothic initial. Tobruk and Arnheim suggest themselves.)

The Colonel of the 11th (or Prince Albert's Own) Regiment of Hussars is designated thus: "H.M. Henry Wyndham, Ensign March 06. Lieut-Col. Jan. 14. Lieut-Gen. 46." It will be noticed that he has no decorations, although his war record is as follows: "Served the Peninsular campaigns of 1808, 9, 11, and 13, including the actions of Roleia, Vimiera, Benevente, Albuhera, Usagre, Morales de Toro, Vittoria and the Pyrenees. Served also the campaign of 1815, and was severely wounded at Waterloo. He has received the War Medal with five clasps." This distinguished officer presumably wore only two medals.

- A Captain John Kincaid, with the prefixes B and M, joined the Rifle Brigade in 1809 and retired as a Captain after 22

years' service. He served on the Walcheren expedition of 1808, and subsequently in the Peninsula War for three years without repatriation. He led the storming party of the Light Division at Ciudad Rodrigo and fought in every major engagement. He also served in the 1815 campaign and was present at Quatre Bras, Waterloo and the capture of that battle-scarred city, Paris. At Waterloo his horse was wounded in five places and killed under him. "He has received the Silver War Medal with nine clasps" is his citation. One wonders what such an officer would have collected in 1939—45.

Promotion and Pay are always interesting. In the present war when one can go to bed as a subaltern and wake as a Temp./Major, or sleep as a Brigadier and be aroused by a bowler hat, the subject has its excitements and pleasures shared by everybody in India except the F.C.M.A. These wartime appointments are often transitory, and may give a false impression of what may happen when Japan is destroyed. A short examination of the slump which occurred in promotion after the Napoleonic wars may be of interest. It had its parallel in the British Army after the last war.

The regimental list of the 1st European Bengal Fusiliers, 1857, shows the C.O. to have 37 years' service, the 2nd-in-Command, Major J. R. Pond, had 30 years, the senior captain 29 years, and the 1st Lieutenant 12 years. The 7th Regiment of Native Infantry (*Burra Crawford ka paltan*) had a similar lot of elderly gentlemen in command. The C. O. 44 years' service, the senior captain 22 years, and the subaltern adjutant 10 years. No wonder that the more adventurous-minded of these officers fled to the many Irregular Corps and Contingents which were spreading throughout the half-conquered peninsula.

The Queen's regiments in England were not quite so senile. For instance, the Commanding Officers of the Coldstream Guards 40 years (exception) the Cheshire Regiment 27 years, the Cameronians 26 years, were youngsters, although their Majors and Captains ranged between 30 and 20 years. The historian, Fortescue, appears to accept these aged warriors during this period as commonplace, and reserves his wrath for the scandalous rates of promotion in the Royal Regiment. He says: "In 1836 a Captain of Artillery who had served in that rank in every battle of the Peninsula War was still a Captain; and Sir George Wood, who had been in supreme command of the Artillery at Waterloo, was twenty-one years after the battle only a Major in the Royal Regiment."

Things appear to have been as bad and as slow in the Navy, where there was a midshipman of twenty-five years' meritorious service who was married and a grandfather. If there had been a R. A. F. in those days the pilot's hoary whiskers would probably have jammed the controls.

The reason for this slow promotion was, of course, the system of purchase of commissions, which Hart's Army List publishes

without shame as a Price Control Schedule:

PRICES OF COMMISSIONS

RANK		Full Price of Commission	Difference in value between the several commissions
<i>Life Guards.—</i>			
Lieut.-Colonel	...	£7,250	£1,900
Major	...	£5,350	£1,850
Captain	...	£3,500	£1,715
Lieutenant	...	£1,785	£ 525
Cornet	...	£1,200	
<i>Foot Guards.—</i>			
Lieut.-Colonel	...	£9,000	£ 700
Major, with rank of Colonel	...	£8,300	£3,500
Captain with rank of Lieut.-Colonel	...	£4,800	£2,750
Lieutenant, with rank of Captain	...	£2,050	£ 850
Ensign, with rank of Lieutenant	...	£1,200	
<i>Regiments of the Line.—</i>			
Lieut.-Colonel	...	£4,500	£1,300
Major	...	£3,200	£1,400
Captain	...	£1,800	£1,100
Lieutenant	...	£ 700	£ 250
Ensign	...	£ 450	

To us such a system appears laughable or revolting, but as Fortescue points out "the system being utterly illogical, iniquitous and indefensible, commended itself heartily to the British public." It saved the tax-payer the cost of providing pensions and it appealed, so they say, to the gambling instincts of every well-bred officer. The gamble was that one could not sell one's commission if one were dead, and the next on the list stepped into the vacancy without having to pay the transfer fee.

The rates of pay differed for officers in the Life Guards, Foot Guards, Dragoon Guards and Foot, but owing to the high cost of living in London officers of Line regiments were incomparably better off than Guardsmen. In 1850 a Lieutenant-Colonel drew 17 shillings a day, a Major 16 shillings, a Captain eleven shillings and sixpence, a subaltern six and sixpence, and an Ensign five and threepence. In 1914, so far as I remember, these rates showed only a trivial increase although they continued to include the Prince Regent's (God bless him!) bounty.

This allowance provides for two or three glasses of wine per day per officer who could afford to drink only water in Mess, a

growing custom which grieved this generous-minded Prince. At about this time it may be noticed that the Guards opened their Club—followed by the United Service Club—so that young officers could feed cheaply in London. (Lunch, consisting of as much bread, beef and beer as the officer could swallow, cost sixpence.)

Despite the low cost of living officers were shockingly paid. I am often driven to believe that both the Treasury in England and the Finance Department of the Government of India still hug to their acrid bosoms the illusion that nobody, except the attractive fools of moneyed families, would ever join the army except for fun. In 1846 General Sir de Lacy Evans denounced the purchase system in the House of Commons without eliciting any sympathy from the members. He reckoned that the annual net emoluments of a Line officer were: Lieut-Colonel £114; a Major £93-15; A Captain £108; and a subaltern £73-5-10.

Parliament moved quickly. Three years later these figures were challenged, and in 1849 this sum was produced in the House:

Pay of a Lieutenant-Colonel:	£365
Cost of his Commission:	£4-5-40
Interest on above, 5%	£2-20
Regimental expenses	£20
Income-tax	£11
	<hr/>
Total	£251
	<hr/>
NET PAY	£114

These calculations can be of only academic interest: a Lieut-Colonel's pay has always been increased to pay his income-tax. During these pre-Mutiny days it is hardly surprising to learn that almost every God-fearing senior Major in the Empire knelt at his pallet each night and prayed for the early demise, by bullet, brandy, or bubonic plague, of his dearly respected Commanding Officer; £1,300 at the one fell swoop or sweep.

Medals, Promotion and Pay remain the most cherished grouses of the Army. I have tried to show that they are as old as the hills around Simla, as dusty as the plains around Meerut, and as active as the leeches in Burma. We can belly-ache about them to our hearts' content, but—speaking cautiously—when we survey our own history and all the signs of the times about these momentous affairs, it should not be impossible to venture to say that in the not-too-distant future neither stones will be left unturned nor avenues unexplored—nor history forgotten—when, if ever, the right time comes to do something about it all.

Some, indeed, think that far too much has already been done.

BRITAIN'S POST-WAR ARMY

Many authoritative speakers took part in a recent debate in the House of Lords on the British post-war armed services, and the following condensed report of the speeches will be of profound interest both to war time and Regular officers in India.—Ed., U.S.I. "Journal."

LORD TRENCHARD, who asked whether the Government could indicate in broad outline the organisation of the three Fighting Services to be adopted after the war, said, *inter alia*:

"The post-war organisation of the Forces cannot be settled until the size of the Forces necessary to ensure peace is laid down by the Allies. The Government, before they can determine the size of the Forces, will also have to decide how large will be the Armies maintained in the Colonies, for this war has shown what Colonial troops can do; it may be that Colonial armies could be increased substantially.

"It has been suggested that the three existing Services should be amalgamated into one Defence Service. I think it would be a great mistake. It is the fashion nowadays to want to do away with individualism, but the British Empire was built on individualism, and led the world on it.

"Then there is the question of Colleges, of which there are three kinds: Cadet Colleges, Staff Colleges and the Imperial Service Defence College. Those who advocate amalgamation of the three Services suggest that if that is not done, it would be a good thing to amalgamate the cadet colleges, of which there are four: Sandhurst and Woolwich for the Army, Dartmouth for the Navy and Cranwell for the Air Force. That, too, would be a great mistake. Cadets have knowledge to acquire in their own special Service, and if you overload the curriculum by teaching your young Naval, Army or Air Force officers about the work of the other two Services, you only produce amateurs who know a little of everything and not enough of anything.

"What of the Staff Colleges? There are three: Camberley for the Army, Greenwich for the Navy, and Andover for the Air Force. To those who advocate their amalgamation, I say 'No.' Every subject has to be learnt thoroughly, and you want to keep those colleges separate so that the officers learn the Staff problems peculiar to each Service. These colleges could and should be adjacent to each other, so that each could see much of the other's work.

"The Imperial Defence College wants drastic improvement and enlargement. That is where, when the three Services know their own subjects thoroughly, they should join together. It should not be a college where officers only go to lectures, but one where they live together and absorb other's ideas. The best of the officers in their own colleges should be chosen to go to this Imperial Defence College, from which must be chosen those who one day will join the Combined General Staff.

"We now come to the technical training of the rank and file, which has a bearing on the internal efficiency of each of the Services, and also in its relation to the problem of recruitment. After the last war we set up at Halton a large training school for the R.A.F. It was an experiment, but it has richly justified itself. Halton and the Halton spirit have been a pillar of strength to the R.A.F. all over the world. Halton-trained men provided the nucleus on which the great expansion of the Air Force was centred. Look at the promotions and honours they gained! Over 1,000 high honours have been won, and a large number of these men are very senior Air Vice Marshals and Air Commodores.

"When we originally formed the Air Force we were told that we were spending all our money on bricks and mortar, on ground staff and ground personnel. It was called 'The Ground Force' and I was once described as 'G.O.C. Ground Force.' That was because we put all the pressure we could on getting a sound foundation for training, in spite of the expense. Has not that policy justified itself? Is it not one of the main reasons why the *Luftwaffe* has been defeated. The whole work of the Air Force has shown what training is doing, but—it is expensive. There is nothing to show for it in peacetime, but in wartime there is just this difference—the difference between defeat and victory. I hope, therefore, that Halton will be enlarged to take at least 4,000, and at least one other Halton built.

"The training of the modern Army is just as complicated as that of the R.A.F. It is not realised what a great need there is for fully equipped training establishments, like Halton and Abberfield. They would have come before the last war if the Army had been allowed to spend as much money on training in proportion to their size as we spent on our Air Force. The same thing applies to the Navy. Therefore I hope we shall enlarge and extend the training colleges of each Service. The nation must not expect to see much without spending a lot of money.

"Selection of the right type of boy for these schools of technical training is important. There is no danger of not

getting a sufficient number of the right type to fill the schools, if we can keep up the scale of education we gave at Halton. By those means we shall get our long-service men by volunteering.

"Is the question of compulsory service under consideration for after the war? I assume that some form of compulsory or national service will be necessary, and if that is so, it is essential that it should be such as will get the best out of everybody. To do that we must ensure that the training gives full play to everybody's individuality and character.

"We must not try to work out an organisation that looks easy and perfect on paper. We must have an organisation that will not ignore the human element, that will encourage the greatest number of boys to join the Service they want to serve in on a voluntary basis. We must have an organisation that will make the men feel that the time they spend in one of the Services is going to be a help to them in their future careers.

"We must examine carefully how service with the Armed Forces can be linked up with the activities of other professions, and see how the Service can best be dovetailed into the educational curriculum. For instance, we are told that a much larger intake will be needed for the teaching profession. We are also told that a defect of that profession in the past has been a lack of contact with the outside world and with men of other callings. I should like to see matters so arranged that a man whose main business is that of a teacher should serve for a period in one of the Defence Services for two or three years before getting a permanent position in the teaching profession. We want it recognised that a man who has served in the Army, Navy or Air Force will not be a worse, but a better Government servant or teacher.

"There will be strong public feeling to make conscription as short as possible—say, for 12 months. This would be of value to character and physique only, and the three Services would largely consist of training establishments. The Services would lose too many of their personnel long before they were trained, for during this war we have seen how long it takes to train for the Services. It has been shown to be the case all over the world, and means that a medium-length service of from two to five years would be of use to fill the gap between the permanent service and the irreducible minimum of compulsory service.

"How shall we get sufficient officers in the future for all Services? Just after the last war we instituted a short-service system for the R.A.F. We saw that the Services needed many more junior officers than they could provide a

whole-life career for. We also knew that in the first year of war we should want a very large reserve of young officers. How did we meet this need? We worked out a plan for a force that would require 3,000 officers, a very large number junior. We could only provide a good curve for promotion—in other words, a career, for between 1,500 and 1,800. The remaining 1,200 to 1,500 were the problem.

"We took them on for four years, after which they were to do four years in the Reserve. When they joined they were asked and persuaded to make up their minds what they were going to do when they left the Service. During their four years' training they were educated in whatever walk of life they intended to pursue. We also approached industrial firms, suggested that they should go to the Appointment Boards at universities, select two or three likely candidates for their business, and then say to them that, provided they passed their examination and did four years' service in the Air Force, at the end of that time they would be taken into the firm. A good many men went to these firms and, I believe that, up to the beginning of this war, of the young men who were on the short-service system only one was unemployed.

"We hoped that the Army and the Navy would adopt the same sort of system, and that it might be applied in the Higher Division of the Civil Service to those who joined between 20 and 23. We did not want to interrupt their education, but we hoped that when they had passed their final examination they might be asked to do two or three or four years in the Fighting Services before they took up their administrative appointments.

"Both they and the Services would have gained. The same would apply to other professions, architecture, the law and medicine, and even to the spiritual profession. Would it not be a good thing for a curate, when he has passed his examinations, to do two or three or four years in one of the Services, so as to rub shoulders with his fellow men before setting down to his curacy?

"You can apply this scheme in some measure to other ranks. Take the lower division of the Civil Service and many municipal services. Normally these services are mainly recruited from youths who enter at 16, and of others with higher qualifications who enter at 18. The scheme I envisage would take them at these ages on condition that at the age of 19 or 20 they would give at least two or three years' service to one of the Fighting Services. Then if they did not disgrace themselves they would be given permanent positions in the Municipal or Government service.

"What of the selection of officers? Quite frankly, I am not in favour of everyone, or even of the majority, coming from the ranks. It does some good, but it does some harm. We should take some from the ranks, and many more from colleges such as Cranwell and Sandhurst, and others from technical colleges like Halton. In that way you get the broadest possible basis... We want every type of person, the clever, the less clever, the practical, the crank, the poet and the musician.

"I hope that each of these points will be really considered by the Government, by the officers concerned, and by those whose task it is to draw up the future organisations of our three Defence Services."

Brief extracts from other speeches in the debate are given hereunder:

LORD MOTTISTONE: "Are we in the future going to continue some form of universal service? If we are, what form should the training take in the entirely new circumstances of attack? This method makes everything new—strategy, tactics, everything. I suggest that the answer to the first question must be 'Yes.' It surely would be wise. We have escaped devastation on a scale undreamed of simply because our soldiers, sailors and airmen have overrun the launching sites.

"We are the outposts of liberty, and in this new world it will be a good thing if we act with the other champions of liberty, the United States. There the President was recently asked whether he expected universal training legislation to be introduced soon. He answered that he hoped so. He indicated that he favoured in broad lines the Wadsworth Bill, stressing that the idea was for each boy to give one year of his life between the ages of 18 and 23 to his Government.

"Before the last war I championed voluntary enlistment, and I still believe that is the best way to get the best men for each particular Service. But in spite of that, I am now definitely of opinion that it is vital for the well-being of this country, and indeed for its survival, to say boldly: 'Yes, we will have compulsory training'....

"What is written on the wall is that if those who love Nazidom say: 'We will fight for Nazidom' and those who love Freedom say: 'We will talk about Freedom,' then Freedom will be destroyed. But if those who love Freedom say: 'Ah, you will fight for Nazidom; we, too, will fight, but for Freedom,' then Freedom will prevail."

LORD STRABOLGI: "It is essential that a Combined General Staff should be established permanently after the war. I am not quite sure we have got a real Combined

General Staff even now. I believe General Eisenhower has a Staff in the Western European theatre which can properly be described as a Combined General Staff, but I do not think that even now we have a Combined General Staff for the whole theatre of operations. The Committee of Chiefs of Staffs in Washington is not a Combined General Staff.

"We have been warned about the danger of new weapons. I would suggest on this subject that the present system of employing scientists to advise the Services will be made permanent after the war. What I have in mind is a General Scientific Staff of the very best available brains in the scientific world to advise the General Staff and the Cabinet on the development of new weapons.

"As to compulsory service, I believe the advantages outweigh the disadvantages. It is fairer, and I am coming to the conclusion that it is more democratic. May I, at the same time, ask what is the Government's future policy with regard to the Home Guard? Here was a great Force, and its members felt that they have been prematurely stood down. Is it going to be continued in some form in the future?

"Lord Trenchard said he did not think that promotion in all cases from the ranks was a good thing. We in our party think it is a good thing. We have advocated it for years, and are glad it was brought about in this war.

"I was glad to hear what Lord Trenchard said about Colonial troops, but one of our difficulties in framing the post-war military programme is that we cannot yet decide what use we shall be able to make of them.... Some of us have protested that Singapore and the Malaya Archipelago were thrown away because more use was not made of the indigenous inhabitants and the Chinese there to form native battalions. We hope that we have learnt our lesson. All this affects the structure of your future Army. If you can rely more on East and West African troops, on Malays and the Fijians to safeguard their own Colonies, it affects the structure of your post-war Army. I suggest that most suitable will be a long-term professional, highly-trained Army, very well paid and attracting the best type of men for overseas service, and a short-term Army for home defence."

THE EARL OF CAVAN: "It would be a mistake to adopt the suggestion that the three Services should be amalgamated. You can never get away from the simple fact that there are three elements—land, sea and air. To fight well on each element or in each element requires specialised training,

and with the multiplication of modern weapons one Service is as much as one man can master.

"As to the Combined General Staff, before you superimpose another bureau between the Chiefs of Staff and the Secretary of State you must be sure of two things: that it is now really wanted, and that it will work. In 1922 Mr. Lloyd George, then Prime Minister, demanded of the late Lord Beatty, Lord Trenchard and myself a joint appreciation of the delicate situation at Chanak. That was the very beginning of combinations.

"Now, twenty years later, selected men from all three Services must have worked well together to produce the perfect combination that resulted in the North African and Normandy landings. Given that the principle of a joint appreciation by the Chiefs of Staffs Committee is maintained, then in my view your Combined General Staff is actually in being and working superbly.

"The talent that has been discovered by the Chiefs of Staff consisted, I presume, of graduates from the Staff and Imperial Defence College, and it seems to me that any demand for a change in the system of Combined Chiefs of Staff Committees must be supported by convincing arguments that something new will work better before any change is made. And I think that will be a difficult thing to do.

"I would advocate a Bureau or Department of Science and Research, the head of which should be a member of the Army Council. I want to continue to invent and produce new weapons. There is always a tendency after a big war to live on one's fat and perhaps for a year or two that is safe. After that we begin to lag behind in invention.

"As to our post-war Army, we shall have at the end of the war battle-trained warriors who will be a priceless asset of the nation. Every encouragement should be given to them to continue as trainers and mentors of the future Army.... The Army has been through a sufficiently gruelling time to enable commanding officers and brigadiers to know the best of their officers and men. I hope that in any process of selection their reports may be accepted as adequate, and that neither officer nor man who has been through the test of war and who is recommended as a soldier will be subject to further examination, either by the Civil Service Commissioners or by psychiatric professors.

"In education, methods of instruction, such as educational films, A.B.C.A. discussions, visits to the Royal Electrical and Mechanical Engineers school, can be made attractive, and not just another fatigue. The greatest credit is due to the Army Educational Corps for all their efforts in

that direction. Generally speaking, we assess the brains of the soldier too low. Many bits of evidence point to the fact that the standard of education in the modern Army is much higher than is generally believed."

Advocating the extension of the Imperial Defence College, Earl Stanhope said it should be resident, and should include officers from the three Services and the Civil Service. He said that after Germany and Japan are beaten we should require Services at least as large as those we had before the war for garrison and patrol duty. We should require armies and an Air Force of occupation for Germany and Japan, and we should probably be asked by the U.S.A. to allow the Royal Navy to take its part in patrolling the Pacific islands.

He reminded the House that on the last two occasions when war broke out, Britain was not the first to be attacked—it was France or Russia. Next time there would be no doubt which country would be the first. It would be Britain. Therefore, it was essential that some Home Guard system should be ready almost at an hour's notice.

We should have to have compulsory service of one year in the Forces, beginning at the age of 18. For the Armies of Occupation and contingents of the International Force he suggested a short-service Army and Air Force and probably a Navy, with three or five years' service. After the last war compulsory recruitment was stopped as soon as the Armistice was signed, and recruits were sent to the Army of Occupation. That was not good enough. All sorts of things happened under the noses of that Army which ought not to have happened.

Lord Hutchison urged the Government to study Lord Trenchard's proposals, and recalled that the Hamilton Gordon Committee sat after the last war to consider army reorganisation. Its report, however, was suppressed by the Chief of Staff of that day. Enlistment after this war should be for three, five and seven years, allowing some to extend their service for a long period, with a pension at the end. He thought we would be bound to continue conscription in the Army, and suggested that they should serve for one year and three months—three months to settle down and be taught their arms, and then a year of training.

Replying for the Government, Lord Selborne said a great deal of preparatory work had been done on the subject of the post-war organisation of the Services, but the governing factor of the problem would be the world security organisation which would be set up by the Allies, and the contribution which the Allies and Great Britain and the Empire would make to it.

WHAT'S IN AN INDIAN NAME?—II

BY LIEUT.-COLONEL F. R. GIFFORD, O.B.E.

THERE ARE three main routes from *Āryāvarta* to the southern parts of the Indian peninsula, namely by the Western Ghats, down the east coast, and following the central line running through the Vindhya (Divider) Range. In one respect, it matters little which route be chosen, for the traveller from the North soon finds himself in a new country, among new people, most clearly not of Aryan origin.

All the place names he reads on the railway stations have a bewildering appearance; although some of them may be reminiscent of what he had previously been used to, even these are subtly changed in their spellings, while others bear no resemblance to any he had met before.

Let us suppose that we are based on Bombay and intend to travel South by the Western route. Before we actually entrain, however, there are three very un-Indian names of places either in or near to the city, which we would like to mention in passing. They are the famous "Apollo Bunder", "Breech Candy" and "Elephanta", with its well-known caves.

The derivation of "Apollo Bunder" has been the subject of a certain amount of controversy, but it is most likely that the word "Apollo" is not its real name. Two suggestions seem reasonable, and of the two the first is to be preferred. Either "Apollo" represents *palla*, which is the name of a fish (usually called the *hilsa*), and the "bunder" was the "landing place" (Persian: *bandar*), where the local fishermen landed their catches; the second suggestion is that Apollo stands for *poli*, which is a particular form of small cake eaten during the celebration of the Holi festivities, and it is said locally that this was the place where these cakes were consumed. But if this is so, why is the word *poli* associated with the word "bunder"? It is natural that fish should be landed at a *bandar*, while it is not necessary to go to such a place to eat cakes.

"Breech Candy" is the European version of *Burj Khādi*, meaning "the tower of the creek".

Lastly, "Elephanta" was the name given to the island by the Portuguese, owing to the conspicuous carved elephant at the entrance to the caves, which was *in situ* at that time. The carving of the elephant was removed to Victoria Gardens in Bombay for safe keeping many years ago. The Indian name for Elephanta Island is *Gharapuri* (perhaps "rock city").

With these preliminary remarks, let us take our seats in the train and start off. The first stop is made at Kalyān (the "Beautiful" or "Happiness"!), after which we begin to climb over the Ghats ("passes"). On breasting the Ghats, we reach the plateau, on which the city of Poona is situated. Poona is the modern

abbreviated name of what had been called Punyapúr, *i.e.* "City of Purification". The original site was at the confluence of the two rivers, Mutha and Mula, and in ancient times it was both a place of pilgrimage and a fairly important trade emporium.

At Poona we change to a metre-gauge train, which is to take us through the Mahratta* country (Mahá-ráshtra, "the great region") into the "Kannáda" ("the black country", so-called from the black cotton soil found there), the land where those who speak Canarese live. This region is often spoken of as the Carnatic (Kar-nádu). We pass Belgaum (Vennugráma—"bamboo town"), Harihar ("the city dedicated to a composite deity, half Vishnu (Hari) and half Shiv (Har) and hear as we travel such names as Goa ("go-en" "cowherd country") and Sholapur ("sixteen towns").

The big city for which we are heading is Bangalore. In this word we come across a termination which is very common in the names of towns in South India. It is properly spelt "-úr" and means simply "town". "Bangalu" is a kind of bean, and Bangalore is the town which has given lustre to its virtues (if any). The name has no connection with the word *bangla* "a bungalow". (Incidentally, the word *Bangala* means "Bengali", and it received its modern signification from the fact that this particular type of house was that built for themselves, albeit of very princely dimensions in those times, by the European traders who settled in those parts of India in the early days).

Many South Indian places are to be found with the same termination, for example Nellore ("rice town"), Vellore ("town of babul trees"). Cannanore (Kanh-úr—"Krishna's town", *cf.* Cawnpore), Cuddalore (Kadal-úr—"sea town"), Coimbatore (Koyam-mutúr—pearl village of a local goddess named Koni), and so on.

Other common terminations are:—

- (a) "—puram" and "—nagram", which are easily recognisable as modifications of "pur" and "nagar". The "—am" ending is Sanskrit.
- (b) "—velly"="hedge".
- (c) "—cherry" (sherry) = "town".
- (d) "—patam" and "patan (am)" = "city".
- (e) "—palaiyam" = "estate".

Examples are:—

- (a) Malappuram, in Malabar ("mountain city"), and Vizianagram (Vijay-nagar—"City of Victory").
- (b) Tinnevely (Tiru-nel-veli—"sacred paddy hedge").
- (c) Pondicherry (Pudu-cheri—"new town").
- (d) Seringapatam (Srirangapātan—"City of Sri-ranga", *i.e.*, Vishnu). Great care must be taken to pronounce this name correctly. We ourselves usually put the accent on the last syllable, which we pronounce as if it rhymed with "ham" or "cam". The stress should properly fall on the last syllable but one, and the word rhymes with "button".
- (e) Mettupalaiyam.

* Spelt Marhata, Marhatta, Marháta and Marátha, according to taste apparently!

While we are in Bangalore, let us look round the places and territories in the neighbourhood. First of all, the city is situated within the borders of the great Indian State called Mysore. The “-ore” termination here is not the same as that in Bangalore. The real name of the state originally was that of a famous demon (*asura*) called Mahesh, who was defeated after a bloody conflict by the goddess Kali—hence the word is “Maheshasura”; this was eventually boiled down to Maisûr, which has now been anglicized to Mysore.

On arriving at Bangalore City station, we see a train standing at another platform grandiosely labelled “Blue Mountain Express”. It runs to the Blue Mountains (Nilgiris, or, as we often write it, “Nilgherries”), in which are situated such well-known hill stations as Ootacamund and Coonoor. Ootacamund was probably named by the local “Badaga”—speaking inhabitants, when the first “brick house” (“uttangi mane”?) was built by a European in those parts, although the Madras Gazetteer prefers “Otta-gai-mandu”—“Toda village of the dwarf bamboo fruit”. We wonder!

Near by is Coonoor (“Hill town”), although others prefer to derive it from the Sanskrit “Kunna”—“small” and “-ûr”—“village”: but why mix the languages? Such a combination is not natural.

Looking to the West, we come to the maritime area, which is called the “Malabar” coast. “Malabar” is derived from “malai” “hills”, and “bar”, which was the termination the Arab seafarers from the Persian Gulf added to the particular descriptive name adopted when referring to any ‘region’ or ‘country’. It may have been the Arabic “barr” “a continent”, or the Gulf Persian “bar”. We find them using this termination when naming other places or districts on their far-flung trade routes; the best known is Zanzibar—“the land of the Blacks”.

One of the chief towns in the Malabar district is Calicut, from which we derive our English “calico”. The name is Kolikodu—“cock-fortress”. Cochin is another, its name is really Kochchi—“a small place”.

Along this coast going south, we meet a series of names, which from their spelling hardly look like Indian names at all. This was the coast first visited by the Portuguese. These folk made no effort to write the place names that they heard in any phonetically accurate style. They generally made no attempt to learn the local languages; so they did not trouble about derivations. They simply spelt the names approximately according to their Portuguese predilections, and from these approximations the English have evolved their own spellings. It is not surprising that the true names have become so camouflaged as to be almost unrecognisable.

Take the town in Travancore, which has fallen from its pristine importance, named Quilon. The Tamil form is now Kollam, which is an abbreviation of Koyilagam—“King’s house”. Travancore itself was originally Tiru-vidan-kodu—“sacred fortress”. We

are now to be introduced to a new prefix which is very common. Note the following:—

Trivandrum is Tiru-v-ananta-puram—"sacred city of Vishnu".

Trichinopoly is Tiru-shila-palli—"sacred rock town", famous for its cheroots.

Tinnevely is Tiru-nel-veli—"sacred paddy hedge".

Triplicane (a suburb of Madras) is Tiru-alli-keni—"sacred creeper tank".

The prefix "tiru" is a local form of the Sanskrit "shri" ("holy"). But, unfortunately, you cannot be absolutely certain, so garbled is the modern spelling, and we find that Trincomalee is really Tri-kona-malai—"three peak hill"!

While we are in the extreme South, what of Cape Comorin? This represents Kumari—"the maiden", a title of the goddess Durga, because of a temple dedicated to her on the promontory at the southernmost point of the Indian peninsula.

It is time to retrace our steps, but we decide to return by the east coast through the Tamilnád ("Tamil country"). We pass Madura, with its great temple, dedicated to Shiv. In spite of its close association with Shiv worship, the town is said to have been so named after Mathura (Muttra), the famous shrine of Krishna on the banks of the Jumna. Others prefer Madúra—"old town", which is at any rate a Dravidian derivation in keeping with its situation. But still, it is interesting to note that this name is found reproduced in other parts of the East to which Hinduism had spread, and we get Matura in Ceylon and Madura in Java.

This south-east coast of India you will see marked on most maps as the "Coromandel" Coast. Antiquarians have offered many explanations as to the meaning of this name. Some are most fanciful, others merely ingenious. The simplest derivation, which also is most probable as it fits in with history, is "Choramandalam", which means "the country of the Choras (or Cholas)," the powerful dynasty of Kings who bore sway in that region for some hundreds of years at the beginning of the Christian era. Their whole domains were called "Choramandalam" so it is not surprising that their coast line should be called the "Choramandal" Coast.

We come now to Madras. The City of Madras, as we know it, is not of ancient foundation (witness its artificial harbour). In old documents it was referred to by the local inhabitants as Madrasapatam. "Patam", of course, we can understand: it means "town". "Madrassa" is not a Dravidian word. It is of Muslim origin and means "a school", and it appears that there was a building of Muslim origin, which was spoken of as "the College", and was occupied by the East India Company's clerks, when the settlement was established at Fort St. George. It is probably from this that Madras got its name.

Further to the north we come to Masulipatam. This is really Machhlipatan, and it is said to have been so named, not because it was a fishing village, but because on one occasion a whale was stranded on the beach at that spot. Such a visitant was, in all probability, unheard of in the district, and its arrival must have been attributed locally to some divine origin.

Other well-known names in that part of India are:—

Tanjore—"tanja-v-úr"—"city of refuge".

Rajamundry — "Rajamahendravaramū" — "Chief king's town".

Perambakam (where a party of British troops were all but annihilated in 1780 by Haidar Ali)—"Parampakkum"—"big village".

Rameswaram—One of the most venerated Hindu shrines in India, traditionally said to have been founded by Rama himself, while he was preparing for his invasion of Lanka (Ceylon). This should be spelt Rámeshvaram and means "Lord Rama".

Conjeevaram (sometimes called "the Benares of the South", and a great centre of pilgrimage)—"Kachchivaram". In Sanskrit this is written Kanchipura "shining city" (cf. Káshi for Benares—"shining one"). In the case of Conjeevaram, its Sanskrit name is simply a corruption of its previous local name. In Tamil "Kachchi" means "heart-leaved moon-seed plant". The moon plant was known to the Aryans as "soma", and from it they produced a pleasantly intoxicating liquor, which, it was believed, was particularly acceptable to the Aryan gods in sacrifice. The chances are that Kachchi was revered by the Dravidians as a holy place before the Aryans arrived; and the latter, finding so auspicious a name, were encouraged to enhance its sanctity under the aegis of their own beliefs, and corrupted its name into Kanchipura; as appropriate to the "Benares of the South".

It will be noticed that the majority of these Dravidian names are purely descriptive; and it was only the spread of Hinduism that led to place names being derived from the names of deities. The old Dravidian gods were malign influences, revered in terror; they were not such as the people would naturally commemorate in their place names. On the other hand, the nature gods of the Aryans were generally friendly, if properly and respectfully handled.

Before we leave this part of the country, it still remains to consider one brief point with regard to men's names among the Tamils. Mention has been made of the termination "—sammy" in one of the introductory vignettes. It really stands for "Swámi"—"Lord", and is affixed to the names of deities. For instance, the generic name for Tamil servants is "Ramasammy". This is Rámaswámi, which literally means "Lord Rāma".

Other names follow the same principle. There are Krishna-swámi and Govindaswámi, which are easy to derive. Others commonly met with are Naráyanaswámi (Lord Vishnu), Rangaswámi (Sri-ranga is a name of Vishnu), Muniswámi (often bestowed on men who have been born as a result of their parents having propitiated Munishvar, a malignant deity, much dreaded by the people) and Ponnuswámi (Ponnamma—"the Golden Mother" is a well-known village goddess).

(To be concluded.)

[The third and concluding article on this subject will appear in our next issue. The first article was published in the October, 1944 issue of the *Journal*.]

MALARIA CONTROL IN THE SOUTH-WEST PACIFIC*

BY MAJOR-GENERAL G. COVELL, C.I.E., K.H.P., I.M.S.,

Consultant Malariologist, G. H. Q. (India).

GENERALLY speaking, the course of events as regards malaria casualties among the Allied Forces operating in the South-West Pacific Area has resembled very closely that on the Assam-Burma front. In both theatres the malaria rate was excessively high during the first year of operations, and in both the rates have since been reduced to a small fraction of the original figures. In recent months, however, the rates in the S.W.P.A. among both Australian and American troops have been very considerably lower than that recorded on our own eastern front.

Among Australian troops, the malaria rates recorded in well-established bases in malarious areas are approximately two per 1,000 per week. Among operational troops the rates have varied greatly according to (a) the degree of anti-malaria discipline maintained, (b) the severity of the fighting, as affecting anti-malaria discipline in difficulties of supply, and (c) the scene of operations.

These examples may be quoted: (a) Rates in the 7th Division in the Ramu Valley operations rose to 93 per 1,000 per week at one period; the fighting was less severe than in the Huon Peninsula, and was of a spasmodic character. (b) In the Huon Peninsula operations, rates in the 9th Division rose to 42 per 1,000 per week at one period; fighting here was more continuous and severe than in the Ramu Valley. (c) In the 5th Division, the present forward division engaged in patrol activities in uncontrolled areas, the malaria rate over the past few months has been approximately 2 per 1,000 per week. Anti-malaria discipline in this division is said to be the best in the Force. These rates apply to all attacks among all personnel, irrespective of whether they had previously suffered from malaria.

By the system of recording statistics now used in the Australian New Guinea Force, a detailed statement of malaria rates in all areas is circulated within 14 days. The introduction of this system is said to have been a dominant factor in the reduction of malarial casualties in New Guinea, since it discloses immediately a rise in malaria rates in any particular unit. The strengthening of remedial measures, including disciplinary action where needed, is thereby facilitated.

The over-all figure for the Australian New Guinea force for the week ended August 11 was:

First attack rate	...	0.8 per 1,000
All attacks rate	...	1.5 per 1,000

* These impressions were gained during a recent tour in Australia and New Guinea, the purpose of which was to study malaria problems in the South-West Pacific area, and to see whether any special measures employed there might with advantage be introduced in the anti-malarial programme of the Assam-Burma theatre.

Malaria figures for the American forces in New Guinea in recent months have been even lower than those recorded by the Australians. At the time of my visit the rates in the two forces were approximately equal.

The over-all rate per 1,000 *per week* for all forces operating in New Guinea and the adjacent islands is at present slightly less than the over-all rate *per day* recorded in the Assam-Burma theatre.

A number of factors, however, have an important bearing on the malaria problem in the South-West Pacific:

(1) Troops are segregated from the local population. The area is comparatively sparsely populated, and any local labour employed is housed well away from any military camp. Local inhabitants who may be living near camps are deported elsewhere. This removes an important reservoir of malaria infection.

(2) The absence of a long rail and road Lines of Communication, necessitating the maintenance of numerous staging camps in malarious areas.

(3) There is only a single malaria-carrying species of mosquito throughout the S.W.P.A., breeding almost exclusively in small collections of stagnant water, such as wheel ruts and bomb craters. It is a most efficient vector, but now that its habits have been thoroughly studied it is more easily dealt with than formerly.

(4) *The character of the campaign.*—With complete sea, air and artillery superiority there is now less need for dispersion. American troops are usually encamped in compact areas, completely cleared of jungle, with the ground surface flattened out with bulldozers. When landing in enemy territory a location is chosen wherever possible where no enemy is present, and since there are usually no local inhabitants either, the mosquitoes are not infected with malaria before the troops land.

These factors all tend to make the conduct of anti-malaria operations a less difficult task than on the Assam-Burma front, but they are not sufficient to account for the great difference between the malaria ratio in the two theatres.

Anti-malaria measures in New Guinea.—There is no basic difference in the organisation and conduct of anti-malaria operations in the S.W.P.A. and on the Assam-Burma front. Australian and American Malaria Control Units perform the same functions as the corresponding units in our own eastern theatre, and have reached an equally high standard of efficiency. The methods employed are essentially the same, being based on the principles laid down by the Indian school of malariologists.

No major anti-malarial engineering works have been undertaken in the S.W.P.A. and there is nowhere a system of drainage comparable in extent with that which has achieved such remarkable results in Dimapur. The usual minor drainage works have been carried out in base camps in New Guinea, and oil has been extensively used to deal with man-made breeding places, *i.e.*, jeep tracks and bomb craters.

In one direction, however, the Australian and American forces have reached a level superior to our own—in the higher standard of anti-malaria discipline. I am aware that in certain of our units and formations there has been a vast improvement in this respect, and some have attained a standard equal to the best disciplined units in New Guinea. But the *general* level of anti-malaria discipline throughout our operational areas is undoubtedly inferior to that in the S.W.P.A.

After making full allowances for the greater difficulties of the malaria control alluded to above, I am convinced that we can lower our own malaria rate very considerably by adopting a regime as stringent as that imposed on the Australian and American forces. These remarks apply particularly to rest camps along the L. of C.; but there are a number of units in the field, in which the standard of anti-malaria discipline still leaves much to be desired.

Two major factors have contributed to the high standard of anti-malarial discipline in the Australian Army.

The first is the example set by the Commanding Officer of the 24th Infantry Battalion. He set out to prove that a high standard of anti-malaria discipline could be maintained, even when troops are in contact with the enemy, by meticulous and unremitting attention to detail on the part of all concerned. After eleven months in intensely malarious areas in frequent contact with the enemy, the admission rate for malaria in this battalion was only a fraction of that recorded among other units operating under similar conditions in the same area.

This so impressed the G.O.C. of the Brigade that he insisted on a similar regime being maintained throughout the formation, with equally striking results. The example of the 24th Battalion probably exerted more influence than any other factor in convincing the Australian military authorities of the practicability of reducing malaria casualties to an insignificant figure in the field, by maintaining a high standard of anti-malaria discipline.

The second factor was the convincing results achieved at the research centres at Cairns and the Atherton Tableland regarding the efficacy of mepacrin in suppressing malarial attacks. Several hundred volunteers who had previously not suffered from malaria were artificially infected by the bites of malaria-carrying mosquitoes which had been fed on malaria patients infected in New Guinea.

One group of volunteers received no treatment of any kind. The remainder were divided into groups, each receiving a daily dose of an anti-malaria drug for varying periods before being infected and for several weeks thereafter. Volunteers were bitten by batches of mosquitoes heavily infected with either malignant tertian (M.T.) or benign tertian (B.T.) malaria repeatedly, and it was calculated that under natural conditions in New Guinea each would have had to be bitten by more than 6,000 mosquitoes of the carrier species to produce the same effect.

To simulate operational conditions as closely as possible, the patients were subjected to various rigorous tests, such as excessive

exercise at the hottest season of the year, exposure to a temperature of minus 9°C., the simulation of starvation conditions and conditions of extreme emotion by the repeated injections of certain drugs, and loss of blood by venesection. One group handed over to the R.A.A.F. was subjected to conditions simulating those experienced at a height of 35,000 feet at a very low temperature, because it had been suggested that exposure to such conditions might cause relapse in spite of suppressive treatment.

The Cairns experiments proved conclusively that all types of malaria prevalent in New Guinea can be effectively suppressed by administering one tablet of mepacrin (=atebrin) daily, *provided the dose is actually taken with unfailing regularity*. Under this regime, all cases of M.T. malaria are actually cured, provided the drug is taken continuously for at least a month after leaving the malarious area, although B.T. malaria will, in a high proportion of cases, relapse when mepacrin administration is discontinued. This type of malaria, however, is completely suppressed so long as the drug is taken regularly *every day*. In the whole series of cases there was no single exception to this finding, even though the infected men were subjected to every conceivable privation during the period of observation.

The great importance of the Cairns experiments was the demonstration that the so-called "break-through" of malaria which so frequently occurs, particularly during a period of active operations, is due not to the direct effect of stress and strain, but to the fact that, under such conditions, anti-malaria discipline is apt to be relaxed and men will forget to take the drug, unless their training has been such that it has become an ingrained habit.

Two other important points demonstrated in these experiments were (1) that one tablet of atebrin per day can be administered over an indefinite period without harm to the person taking it, and (2) that persons taking this dosage regularly cannot infect mosquitoes which feed on them, so that all human malaria carriers are thereby eliminated from the force.

The incontestable evidence produced at Cairns, following the demonstration by the 24th Battalion, the 15th Brigade and the 5th Division, that the maintenance of strict anti-malaria discipline can reduce malaria casualties to an insignificant figure even under active operational conditions, has been followed by the issue of two very important and comprehensive routine orders on malaria control.

These extracts from a routine order of August 28, 1944, issued by the G.O.C., Australian New Guinea Forces, reflect the attitude now adopted by the Command:

"Success in fighting malaria will be treated as just as important as fighting in the field. Failure to fight malaria will be regarded in the same way as failure in the field due to neglect or incompetence.

"Discipline.—(a). Every breach of this order is a serious offence. If an officer or N.C.O. commits a breach, he will be court-martialled unless the Force Commander otherwise directs. Every officer and man is responsible for carrying it out.

"(b) Every Commander, officer and N.C.O. will be held personally responsible for any failure in carrying out this order on the part of those under him.

"(c). Science has proved that when a man develops malaria, there is strong presumption that he has not been taking his mepacrin. Every case is strong evidence (i) that the man did not take his mepacrin regularly, and (ii) that there is a loophole in the supervision.

"(d). Every case will, therefore, be inquired into, to remedy any weakness, and punish any breach. If inquiry indicates that neglect took place in another unit, pass the report on direct to the Formation of H.Q. or Base Sub-Area commanding such unit."

Part II of this order applies to field conditions, and repeats in substance the orders which achieved success in the 24th Australian Infantry Battalion under extremely difficult conditions. Here are some extracts:

"At 1900 hours daily, Battalion Headquarters and Companies will have a muster parade of *all* ranks.

"Section Commanders will call the roll under the supervision of Platoon Commanders (where applicable). Each man will step forward on his name being called, and will receive and swallow one mepacrin tablet. Mosquito repellent will then be applied. The Platoon will then be inspected by the Platoon Commander, to ensure that gaiters are worn, sleeves turned down, and clothing is not torn.

"The Platoon Commander will inspect sentries whose tours of duty will be between 1900 hours and 0700 hours the following day, to ensure that such personnel are in possession of gloves, headnet and mosquito repellent.

"Each Platoon Commander will then report compliance to orders to his Company Commander. On receipt of reports from all Platoons, the Company Commanders will telephone Battalion Headquarters that orders have been complied with.

"If for operational reasons, *e.g.* because of distances involved, it is impracticable for Platoon Commanders to inspect their troops, then the N.C.O. in Command will act. *This is an Officer's responsibility, and will not be delegated to N.C.Os., except in cases above mentioned.*

"At 2200 hours daily, the battalion duty officer will notify Company Commanders and officers in charge of Staging Camps, that it is time to re-apply repellent. This notification will be made by phone, signal, or runner.

"Between 2200 hours and time of retiring daily, Platoon Commanders will inspect beds, to ensure that all personnel are in bed, under nets, with nets properly tucked in and free from mosquitoes. They will check that the hut or tent has been sprayed immediately prior to their inspection. If, on account of duty, or any other reason, personnel are not in bed by 2200 hours or later, the Platoon Commander will delegate the N.C.O. in charge of flying squad to make the inspection.

"Company Commanders will detail a Flying Squad in charge of an N.C.O. They will work in shifts of two. During hours of darkness they will inspect all personnel, and move away from nets any personnel whose bodies are touching nets. They will carry arms and a torch. They may act as lines patrol as well, or they may replace patrols. This rule will *not* apply to outposts whose numbers preclude the provision of this guard.

"The Commanding Officer will apply for a court-martial of any officer, or detachment commander failing to obey these orders. Evidence given by patients evacuated to hospital, who admit non-compliance with these instructions, will be used against the soldier's Platoon, etc., Commander."

A routine order issued on September 4, 1944 by the Commander of the Allied Land Forces in the S.W.P.A. and Commander-in-Chief, Australian Military Forces covered fifteen pages, and included most of the points enumerated in the New Guinea Force Order quoted above. The following extracts are of special interest:

"It has been established that malaria can be effectively controlled by the application, under strict military discipline, of the proven methods detailed in this order. Wastage from malaria is, therefore, a reflection on the standard of discipline of the unit concerned.

"Commanding Officers will be held personally responsible for ensuring the strict observance of these instructions contained in this order, and they, and all other officers, will, at all times, be vigilant and unremitting in the enforcement of such instructions.

"Neglect to comply with such instructions will be treated as a serious offence, and will be punished accordingly.

"The occurrence of cases of malaria in a unit which has been directed to take the dosage of mepacrin prescribed in this order will be regarded as *prima facie* evidence that the Commanding Officer has failed to ensure the observance of such instructions."

Concerning the administration of suppressive mepacrin, the Order states:

"Suppressive mepacrin, however, does not prevent malarial infection. It cures malignant tertian malaria, but only suppresses benign tertian malaria. Personnel exposed to infection in malarious areas will become infected unless they take stringent precautions against mosquitoes. When the taking of suppressive mepacrin is discontinued, most of those infected will suffer relapses of benign tertian malaria. The number and duration of these relapses will be related to the degree of infection, or, in other words, to the number of times the individual has been bitten by infected mosquitoes.

"Measures of personal protection, including the use of mosquito nets, mosquito repellent, and protective clothing are, therefore, still absolutely essential."

Two important paras of this Order relate to the movement of anti-malarial stores by land, sea, and air:

"Anti-malarial stores will be regarded as having priority equal to urgent tactical stores, and will be moved and distributed with the utmost expedition.

"They will be so loaded with respect to other consignments as to ensure that they are the first to be unloaded.

"In addition to the normal marking, packages of anti-malarial stores will be marked with three bands, each two inches wide, coloured red, blue and red respectively, spaced two inches apart, and passing completely round the package."

An important regulation in force in New Guinea, not included in the above, is that no case of uncomplicated malaria is allowed to be evacuated to the mainland of Australia.

That the prevention of malaria in the field is a function not of the medical services, but of the Command, was a point which struck me most forcibly in my conversation with senior commanders of Australian and American armies. They accepted this principle *in toto*. It is realised that the medical services have not the power to enforce the regulations they advocate, and the problem of malaria control is treated on exactly the same footing as the planning of an assault on an enemy position.

Although the regulations in both forces are extremely rigorous, and although military authorities are determined to enforce them with the utmost severity, the occasions on which it has been found necessary to take disciplinary action are comparatively few. On one occasion a Battalion Commander was removed from his command because the anti-malaria discipline in his battalion was proved to be lax, but courts-martial have been rare.

The reason for this is that both forces have to a large extent reached the ultimate goal to which we are all aiming, namely, the realisation by the individual of the effect that malaria can have not only on his own health, but on that of the Force and of his personal responsibilities for its control. Anti-malaria precautions have become such a fixed habit that they are carried out almost automatically.

Having been present at the daily anti-malaria parade of one of the Australian infantry battalions, I can testify as to its thorough nature. The whole procedure was completed in a surprisingly short time, obviously the result of long practice. The skin of all the men showed deep-yellow coloration with one exception, and this was the only individual who had had a recent attack of malaria. He admitted that he had not taken his meparin regularly.

I do not recall seeing a single Australian soldier who was not observing all precautions regarding protective clothing from dusk onwards. The American troops are said to be not quite so careful in this respect in their base camps, but the anti-malaria discipline of the forward troops whose bivouacs I visited on the banks of the Drinimour River, east of Aitape, was every bit as good as that of the Australians.

At every officers' mess I visited in New Guinea, whether Australian or American, mepacrin tablets were invariably on the table at each meal, and were passed round by the senior officer present with the same regularity as was the port in pre-war days.

At the risk of repetition, here are some extracts from notes made by the Commander of a Brigade which operated in the Ramu Valley early in 1944. Their significance lies in the fact that they express the opinions of a combatant officer with long experience of battle conditions, and not those of a medical officer:

"The Brigade moved into the Ramu Valley fully conscious of the dangers of malaria, and with a determination to keep their sickness casualties down to a minimum. . . The fatiguing work in the jungle and mountains, the demands of battle in close contact day and night with the enemy, long range patrolling in constant rain and mud, and the dispersal of the forces over a large area under the control of sub-unit commanders, in many cases junior N.C.Os., all tend to render the task more difficult. . . .

"The men must carry on their backs the necessities for fighting and living. Each night they must construct new rain shelters, erect nets, take mepacrin and apply repellent. All this is not so easy when all ranks are wet through, hungry and exhausted. Weapon pits must be dug, patrols go out, sentries posted; but still the malaria precautions must be carried out."

In this Brigade the following precautions were adopted, *in addition to those laid down by the medical authorities*:

(a) Education of the individual soldier in the effect malaria can have on the force, and his personal responsibility for its control.

(b) The main basis of malaria control, and supervision within the unit was parades, roll calls, and reports.

(c) Malaria control became a ritual in the unit in the same way as weapon and kit inspections and parades. *This can and must be done in battle, just as it is in training camps.*

(d) Every sub-unit commander was responsible, each night, to inform his next higher commander that his command had carried out the malaria precautions. This culminated in a signal to the Brigade Command from Commanding Officers each night. Sub-unit Commanders can be liars, but it affects their conscience to be liars every night.

(e) A daily study of malaria evacuations was made by the Brigade Commander. Charts were kept, and action taken immediately any increase was shown.

(f) All individual cases of malaria were investigated. The close co-operation of the Field Ambulance by questioning the patient at times disclosed a laxness in a sub-unit. Immediate action was then taken, the Section, Platoon and Company Commanders of the individual concerned reporting personally to the Commanding Officer.

(g) Operationally, the view was taken that in the main at least two-thirds of the force could use nets, even in contact, at night, the remaining third being on protective duties. There were several occasions when contact was so close throughout the night that the use of nets was not possible.

(h) All patrols were briefed regarding malaria control and were interrogated on their return. The patrol commander, in his written report, stated the malaria precautions taken, a paragraph being included in every patrol report. Nets were always carried on patrol so as to be available. There are few patrols which cannot use nets. No sane recce patrol bivouacs so close to the enemy that nets cannot be used—due allowance being made for the necessary protective personnel. It would be expensive in manpower to send out a patrol of, say, ten men on a four-day patrol and lose 50 per cent. from malaria casualties.

(i) In all operation orders and instructions, malaria control was always dealt with. *It was invariably considered as part of the operation, and never allowed to be overshadowed by the operation.*

This Brigade Commander concluded with some main points, among which were the following:

"Commanders must realise the necessity for conserving manpower by the maintenance of health.

"Precautions laid down for the prevention of tropical diseases must be adhered to.

"Ensure that every man accepts his individual responsibility for the control of malaria, and understands the effects malaria may have on the fighting force to which he belongs.

"The responsibility of constant supervision must be realised by every officer and N.C.O. from the Commanding Officer downwards. Supervision on an organised disciplinary basis has proved to be most effective.

"To realise the human frailties when the flesh and spirit is weak from long campaigning, and to take extra measures to combat any laxity in malaria precautions.

"Investigate every laxity relentlessly. Pursue the inquiry until the individual responsible is found. One careless, inefficient officer or N.C.O. may be the cause of innumerable casualties.

"Don't let the 'operations' bogey lessen the vigilance on malaria and other precautions. Far more casualties will come from malaria than from Japs. Malaria control should become part of the unit battle drill.

"Study figures and charts. These tell a story, and from them the Commander can most likely put his finger on the weak spot."

Malaria casualties in this Brigade after seventeen weeks of hard and exhausting campaigning were 267, or 8.5 per 1,000 per week.

Summary

1. The general course of events regarding malarial incidence in the S.W.P.A. closely resembles that experienced in the Assam-Burma theatre. In the early stages, in both theatres malaria casualties were excessively high, whilst more latterly these have been reduced to a fraction of the original figure.
2. Reduction in malaria rates in the S.W.P.A. has, however, been much greater than that in Assam-Burma. The most recent figure in the former area is only about one-eighth as high as on our eastern front.
3. The principle that the prevention of malaria in the field is a function not of the Medical Services, but of the Command, is accepted *in toto* by the Senior Commanders of both the Australian and American Forces operating in the S.W.P.A.
4. The organisation and conduct of anti-malaria operations in the two theatres are essentially the same. The great reduction in the figures in the S.W.P.A. has been brought about not by the use of any new methods*, but solely by the higher standard of anti-malaria discipline maintained in both Australian and American armies, backed by comprehensive and extremely forceful routine orders rigidly enforced.
5. A fundamental difference between the conditions obtaining in the two theatres of war is that in the S.W.P.A. senior officers are aware that if anti-malaria discipline among the troops serving under them is shown to be lax, they will inevitably be deprived of their command; whereas in the Burma-Assam theatre officers in a similar position know that whatever may be their shortcomings in this respect, the most that is likely to happen to them is a reprimand.
6. Certain factors operating in the S.W.P.A. render the task of controlling malaria in that area less difficult than is the case on the Assam-Burma front, and it is unlikely that the rates can be reduced to such an insignificant figure as that recently recorded in the S.W.P.A. Nevertheless, there is room for considerable improvement in the anti-malaria discipline among our troops, and by a more rigid adherence to detail in this respect in all operational areas, and more particularly along L. of C., it should be possible to effect a very substantial reduction in the malaria rate.

*Wide publicity has recently been accorded to D.D.T. (**Dichloro-dimethyltrichlorethane**), which possesses remarkable insecticidal properties, and is likely to prove of great service in the control of malaria. I wish to make it quite clear, however, that the malaria rates in the S.W.P.A., were brought down to their present insignificant level before the introduction of D.D.T. into that theatre of operations.

POWER OF MANOEUVRE

By "AUSPEX"

AS WE see war to-day we are, I think, allowed to accept that the final act of war is the land battle. Whether that will be so in the future we have yet to decide. It is not the purpose of this article to discuss this problem of the future, but we may be allowed to make a certain contribution to it. Writing in this *Journal* in April, 1944, we suggested that the nature of war was regulated by these three things:

(a) The existence of open flanks, or the ability readily to create the open flank by a break-in and through.

(b) The predominance of the mobile arm or arms, which will exploit the open flank. (For land warfare the air arm is a mobile arm of bombardment, and a fast means of transport for airborne armies and supplies.)

(c) The ability to administer the mobile arm to the point at which it will obtain a decision.

With these three conditions in mind we can predict what the next land war will be like, if there were ever to be another war. It will be a slow war of powerful defence lines or it will be a dynamic war of areas, fortresses and mobile field armies. We are in the latter phase to-day. But what is it that so decisively influences these conditions? Above all, the influence is the weapon that is to predominate in the next war. Thus in this war it is, on land, the armoured weapon that has re-created our power of manoeuvre. Closely interwoven with it is the fresh new phenomenon of war, air power.

Therefore, in the peace years it is our first, urgent and vital task to engage soldiers and scientists together to determine the weapon or war device that is to influence decisively the next war. On that determining factor we base everything; on that we build up our whole operational policy, our whole tactical technique, our whole training—perhaps, also, our whole foreign policy.

It is axiomatic that the development of tactics is brought about by the development of weapons, so our research into weapons must always keep ahead of our tactics. If it proceeds too slowly then our tactics, from use, will become stereotyped: in the end the point will be reached, as it had been reached by 1930, when tactics are so stereotyped that staff duties, as represented by the perfect operation order, become the master of planning, as then represented by the stilted and conventional tactics that had substituted the dynamic tactical experiments that would have followed at once from the discovery of the new weapon. Staff duties must be kept in their place as the servants of good planning.

If research into the new weapon or war device proceeds fast enough, then it is we who introduce the dynamic quality into our

planning, and it is we who spring the whole new method and technique of war upon our enemies at the outset and it is we who are best prepared to meet with our effective defence a sudden and surprise onslaught. It is we who fight and win a short war. Surely even finance can see the direct return from expenditure on this research.

The discovery of the weapon, or war device, is the business of the soldier helped by science. The development brought about by the evolution of society, its industries, its commerce, are the business of the civilian: but the soldier is intimately concerned in keeping a watch on these developments to turn them to his own warlike purpose. The petrol engine is one such innovation which not only rendered easy our administration and so enabled us to supply large forces to great distances, but also, applied to armour, produced the war device of the tank.

Since the final and vital act of war is the land battle, the vital fact in war is that that land battle must be won. Thus, little as we may care to acknowledge it, the whole effort of the nation at war is devoted to one end and one only—the winning of the final land battle. No matter what support the other services may give, that battle will only be won by a highly and expertly armed and trained land army handled by a master of his art. Let us be quite certain on that point, for we must realise that its armament must be in the end essentially an efficient *offensive* armament.

To this end, in peace, our researches into armament and its accompanying equipment must be directed. This research cannot be divorced from that of the sea and air forces into their own armament. All three must be centralised, with subordinate branches dealing with the needs of each service; information must be freely exchanged. Again we must emphasise, however, the vital importance to us of finding always the new weapon for the land army so that we shall not neglect that research, however important and pressing we may find the need for research into the requirements of the sea and air forces.

As we pointed out in April, 1944, every single army since the dawn of war has striven to gain power of manoeuvre. In effect, it has striven for the ability to bring fighting power to the decisive place in proper time, and so to win its battles and the war. This is something more than pure mobility: it is the power of manoeuvre. Having obtained a sufficient power of manoeuvre, the natural outcome of this effort is that the army seeks at once to strangle the power of manoeuvre of its enemy with the ultimate object of winning the final and decisive land battle. Thus, the earlier in the war that an army is ready to start in on this strangling process, the better, and the sooner will it finish the war successfully. For this object, it will seek every aid within its reach. It will seek the help of air and seapower. In fact, these with their longer reach will be the first to come into action in this process.

One does not get far in discussing the theories of war if one cannot find examples to illuminate one's thoughts. We first need general examples to show how a new weapon has produced the new battle technique, and how it has acted upon our own and the enemy's power of manoeuvre. Then, we need more particular

examples over a period to show how the face of battle has expressed the strains and emotions produced by the new influence, the new weapon, and how the stress has been lightened by the answer to the new weapon.

The phenomenon of this war has been the growth of air power and its decisive influence on war in all elements. Superior air power has started in all cases the process of producing its owner's power of manoeuvre, and of whittling down that of his enemy. The very first task of war has been to trounce the enemy's air power in both the strategical and the tactical field, so as to allow the whittling process to start. From this have come about certain lesser effects, such as the restriction of the power of manoeuvre of naval fleets in the face of unbeaten shore-based air power, and the growth of seaborne air forces to combat the restrictive influence of land air power and to limit the power of the opposing naval fleet. It is in the recent American operations in the Pacific that we see these great changes proceeding, following as they do on the loss of sea supremacy after the destruction of our warships in the Malayan catastrophe. Always, the first battle is for air supremacy general or local.

But perhaps the most important result of the arrival of great air power is the effect it has had on the general strategical conception of war. It has produced a new object before us, that of advancing our air bases in a scientific pattern so that the fullest power for destruction can be developed from our land-based air forces. Following from this we get a new balance of values between the sea spaces and the land masses. Air power is utterly dependent for operational needs and for its very sustenance on the land masses, not on the sea spaces.

In the old days we regarded the sea with all its dangers as a strength to us. In the last war and again in this it nearly brought about our ruin, and would certainly have ruined us if our enemy had early grasped the value of long-range air forces as a destroyer of sea convoys, the most vulnerable of all forms of transport with so many eggs in each basket. To have lost our liberty to move on the seas would have killed us. Only when air power has virtually destroyed its opponent in the appointed area can we safely launch our combined operations of army and naval forces across the oceans. If the enemy has eyes with which to see our movements over the wide seas then he knows generally where we intend to land. He can then reinforce and redispense his forces and our problem is once more to strangle that movement. If the movement must come over the sea, so much the better for us, provided that he is unable to protect it. That is why we see island after island falling to American air, sea and land power. And so we set down one lesson, and it is that a nation must seek from the outset to fight its war where it can most easily and so swiftly strangle its enemy's power of manoeuvre. In peace it must know how best to bring this about early in a war.

So in the Pacific and in Northern Europe to-day, our air bases are being thrust forward by the combined action of all three services, and bit by bit we are thereby tightening our grip on the enemy's capacity to move his fighting power to the decisive point of the land battle.

So much for the big picture of war to-day, and the influence on it of a new war device. Let us turn to pictures of the same scale in past history before we attempt to examine some of our smaller new pictures, our land battles of to-day. We are talking of power of manœuvre, so let us look at those devices that have been essentially mobile. Here are some of them:

The horse and the cavalry: the steam engine and the railway train: the petrol engine and the M.T. convoy and the tank.

Since Alexander the Great, in the 4th century B.C., first produced the new cavalry on the battlefield and thereby won his great victories, notably of Gaugamela and the Hydaspes, the wheel of war has turned many a circle between the supremacy of the mobile arm and of the infantry firearm. It is the history of cavalry and of its rise and fall in predominance that is the history of the power of manœuvre on land.

Hannibal at Trebbia and at Cannæ, a century after Alexander, confirmed the supremacy of the horseman. Before the infantry had time to recover, the Parthians perfected* the precursor of our tank, the mobile firearm—the cavalry armed with bow and arrow. At Carrhæ in 53 B.C. Crassus' army was destroyed on the desert sands by this Parthian cavalry. First it shot the Roman horseman to pieces, then turned on the infantry. These sensibly retired into a town, a fortress, but then took the field again without a mobile arm, were besieged in the open desert and there the Roman legions were destroyed. How much does this read like a modern battle of the Western Desert—Nov.-Dec. 1941. Gazala, 1942—as we shall mark later on in this article!

Four hundred years later Valens' infantry army was destroyed at Adrianople by the Gothic cavalry and it was not till 1356, at Poitiers, that the decline of the mobile arm again set in perhaps finally. This decline was brought about by the infantry's pike and by the infantry skill with the bow and arrow. Thereafter, firepower improved until in 1494 Charles VIII of France conquered Italy with a small infantry force, partly armed with the arquebus and with a quantity of mobile cannon. The Italian horsemen of the day would not face the fire of these weapons. With the mobile arm in the descendant power of manœuvre was being dismounted. Somehow, it had to be restored.

So the cavalry now dropped its heavy armour, became more mobile and took to the sword. It found now that the infantry matchlock of Cromwell's day, its slow rate of fire, its consequent unwieldy infantry formation that made a change of front so very tedious and difficult, that these things gave it the chance to close. The infantry was chased like thistledown from the battlefield.

By the new flintlock and then by its squares it managed after another 150 years to come near to holding its own, till the invention of the percussion cap for the musket settled the matter and, by widening fronts in defence and so enabling flanks to be strongly sited, started once more to restrict the power of manœuvre of all armies. By 1914 that power of manœuvre was dead, killed by the

* Alexander had used mounted bowmen in his army in the 4th Century B.C.

machine gun on the battlefield, by the huge, widely flung national mass armies which in size and battle requirements had outrun the capacity of horsed transport to keep them manoeuvring, whose better fire weapons enabled them to stretch out their defensive fronts widely for hundreds of miles to impassable obstacles, but whose big mobile horsed and horse-fed arm lacked the power of manoeuvre to obtain a decision by wide flank movement or deep penetration. The power to administer was lagging behind the greed of the weapons on the battlefield.

Almost worst of all, modern industry was producing such heavy defences and strong obstacles that no horse-drawn siege train big enough to start the hole for penetration could ever be concentrated. The siege train dropped out, only to be revived by British and Americans in Northern Europe in 1944 in a novel form.

In numbers lay security: Napoleon's battles of attrition were now wars of attrition. Signal communications, until the coming of W/T., were little better for a mobile force than in the days of Napoleon, but the forces to be controlled were immensely greater. One understands why Marshal Saxe in the 18th century held that no Commander could efficiently wield an army of more than 60,000 men.

The coming of the steam railway gave greater strategical mobility, but the system was too rigid to give power of manoeuvre on the battlefield or beyond it. It helped Stonewall Jackson in his daring and rapid thrusts: it enabled the Prussians in 1870 to supply large forces on definite thrust lines to Paris: it enabled the second Moltke to launch a huge force on a continuous front but it did not enable him to manoeuvre a mobile right wing on the battlefield. This ability had to await the coming of the motor vehicle and its general use.

The cavalry ride to Damascus at the end of the Palestine Campaign in 1918 was the worst thing that happened to the British Army for a century. It blinded our leaders to the truth, to the fact that a new war device had arrived. Fuller and Liddell Hart, avidly read by our enemies, strove with all their energy to direct attention to the armoured weapon and away from horseflesh, but they were up against the decisive success in Palestine and the ride to Damascus. They saw that on land the recovery of our power of manoeuvre was now possible through the use of the new war devices, the tank supported by the petrol-driven lorry.

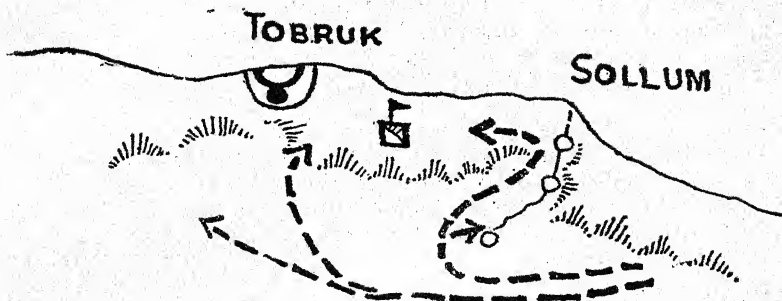
One can reasonably attribute the German failure in Russia to their having attempted to destroy the Russian army with an army that was in great part horsedrawn. Much of this army exerted so little power of manoeuvre that it became more of an incubus than a help. With a powerful cross-country mobile force of armour and infantry and with a great mobile siege train and a properly-balanced air force, the Russian army should have been destroyed, a great part of it besieged and reduced in the field before relief could reach it.

The petrol engine is the modern cavalryman's horse. It has started a new era in war as Philip of Macedon started a new era with Alexander's horsemen of Gaugamela and the Hydaspes. It is a separate study to determine where this invention and the advent of aircraft will lead us in war.

This paper is only an introduction to that study.

Now let us look at a few battles of this war. We will select some that are clear-cut and well-defined. I apologise for giving no scales in the diagrams: time presses. Remember that these are only diagrams. *British - - - - Axis o—o—o—o.*

(i) November-December, 1941—The Battle of Tobruk.



Rommel laid siege to Tobruk. To cover his siege operations he occupied a field defensive position, virtually linear, with its right flank open. A field fortification is not designed to stand siege, for times and resources do not allow of its being munitioned and supplied to fight for a prolonged period once its flank is turned or its front penetrated. Turn to (a) at the beginning of this paper and then remember that in those days, in that open desert, (b) also obtained and so, with good staff work, did (c).

In our favour (a) and (c) already existed. But the Axis was more powerful than we were in the mobile arm. Before we could win a decisive battle we had to gain predominance over our enemy in (b). With these three in our favour we would finally gain absolute power of manoeuvre and whittle Rommel down to impotence: with that, Rommel's infantry field defence would fall as the Roman infantry fell at Carrhæ, besieged by mobile troops. Thus, directly we threatened to lay siege to these infantry positions Rommel must try to relieve them: that is, he must dance to our tune. This would at once restrict his freedom of manoeuvre and so his power of manoeuvre.

The British Commander, therefore, decided to stake every thing on getting this one thing (b) in his favour. Fortunately, Rommel had restricted the mobility of his armoured forces by so disposing them that they were almost penned in between the escarpment and the sea. General Auchinleck was going to destroy the enemy's mobile forces by every means at his disposal, air and land, starting with air attack to subdue his air power and to strike at his administrative means of retaining his power of manoeuvre. For the rest, he mounted his infantry, and for nearly a month, completely mobile, he sought battle with the enemy's mobile armoured forces and, in the end, virtually destroyed them. Deprived of his arm of manoeuvre, Rommel raised the siege of Tobruk and fled westwards. Our power of manoeuvre had become absolute.

Behind him Rommel left his infantry of Carrhæ, which was besieged and reduced in the field.

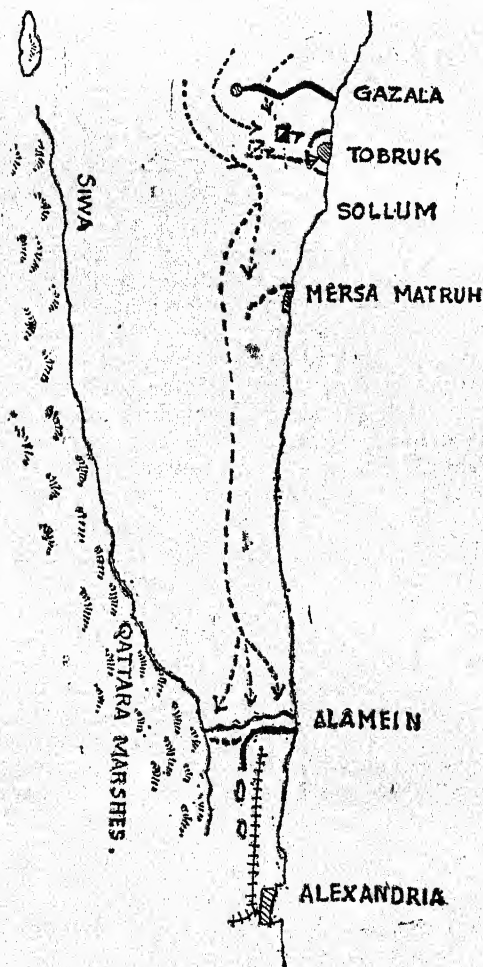
There are rules of what I may call "normal war,"—the war of fortresses, of sieges, of assaults and of mobile field armies,—whatever wise people may say. Rules are made to be broken, if one accepts the risk; and we are told that there are exceptions to rules.

Some rules of war change or disappear: some are eternal.

Here is one rule: Count the number of battles that have been lost in this war through disregard of this rule. *You cannot hold a field defensive position if you are weaker, or become weaker, in the mobile arm.*

What then are you, in these circumstances, to do? The answer is to get into a fortress position. Here is a diagram which shows the battlefield of Gazala and the fortress of Alamein on which General Auchinleck stopped the Axis rush for the Delta, and where, in October, 1942, was fought the great epic of the 9th Australian Division.

(ii) May-July, 1942—Gazala to Alamein.



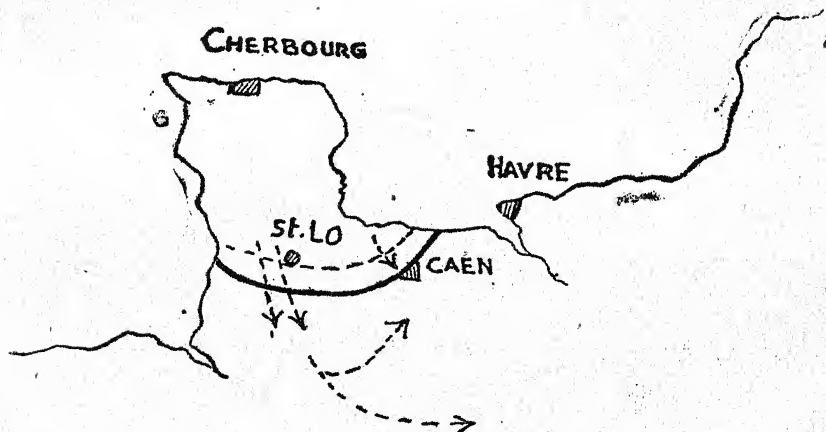
At Gazala we committed our mobile arm, which was weaker than that of the enemy, to keep a linear field defence in position. A threat to the security of that position must of necessity draw our weaker mobile forces into battle. We had thus restricted the power of manoeuvre of our reserves before the battle started.

Rommel, by a flank move, exerted the threat and brought our armour to battle and finally defeated it. A large part of our infantry force was cut off at Gazala and later on in the desert, and captured. The Tobruk fortress, lightly held, was stormed and taken. That any infantry got away from Gazala and Tobruk was solely due to the fact that some of them had their "horses" with them. Had this not been so the infantry would have been besieged in the field on the Gazala position and there destroyed.

Alamein was a fortress that held within it a large quantity of munitions and supplies.

A new power was coming into being, the heavy bomber, to take its part in the new siege train of a mobile army.

Here is a diagram of the battle of Normandy, 1944



The British and Americans had a powerful mobile force. The power of manoeuvre of the whole German army had been reduced by tremendous air attacks against rail centres, bridges and other communications, and against all forms of mobile arms and motor vehicles. They tried to "seal off" our landings by getting into wide-flung field defences. Bradley employed the new weapon of air bombardment and burst through with a great mobile force: then the end came. The German northern wing was besieged at Falaise in the open field and virtually destroyed, its power of manoeuvre gone. Patton, with absolute power of manoeuvre, launched forward to what appears now to have been the limit of his administration at which point his mobility, and so his power of manoeuvre died away.

And how do we stand to-day in November, 1944 on the Western Front? The German levee *en masse* has at last appeared. We find ourselves storming fortresses, one after the other. Has Germany herself become one great fortress? Are we now to scale

up all our ideas, with the vastness of to-day's war machines? To think of our armies on the Western front simply as a besieging force awaiting the time to deliver the assault on the fortress with our great assault siege, train and our heavy infantry? And after a burst into the fortress must we fight from city to city as our fathers fought from house to house when they broke into a fortified town? Must we starve out great areas of her country? Must we scale up our plans so that we aim to isolate and break into an area of Germany that will lead us closer to the ultimate thing, the complete strangulation of her power of manœuvre?

The answer to all this is "Yes." And we need not flinch from it for we have gone far already to neutralise Germany's power of manœuvre. Day by day her effort at resistance becomes more and more static; she cannot move, even if she possessed it, a mobile reserve of fighting power to gain a decisive success or even to prevent our gaining such a thing. The noose is tightening. If the German Army is to-day, November, 1944, static on a linear defensive system, the reason is that, lacking freedom of manœuvre, it cannot afford to allow us through the defences for it is in no state to stage a counterstroke to drive us out or to knock off the head of the attack. The German Army is lost.

What of Japan? The process of whittling down her power of manœuvre has only recently started, but she is the most vulnerable of all Powers, for she carried her fighting power over the seas with utterly insufficient air power to escort it to its destination. So weak is her power of manœuvre. It was an act of idiocy, manifesting the intellect of a moron, ever to enter a war as an island nation understanding little more than the four implications of air power that Germany had manifested to her in 1939-40: obviously not having grasped the vital need of all war, the retention of the mobility of a sufficient fighting power. To-day the tentacles of air power, moved by the sinews of sea and land power, are around Japan and she is being strangled: the life breath of war even now begins to whistle in her gullet: soon after we have strangled Germany we will suffocate Japan for ever, for the power of manœuvre is the breath of war.

* * *

Since I have rashly spoken of the rules of war, I must in all decency turn back to them though they hardly affect my subject in this paper. As I have said before, there are rules of normal war, so it is for me to collect a few for scrutiny.

Some are eternal and some apply to all forms of war. It remains for some good soldier to compile these rules: they must be short for the Platoon Commander to read and to digest. Here are just a few to start with. You will find recent illustrations for yourself, but I have suggested some in the brackets after certain rules. They are taken from "The Tiger Kills," as it is a book most of us will have lately read and may have by us.

Surprise must always be thorough. Throw every other consideration aside in order to achieve the type of surprise on which you have set your heart. (*Akarit—1943; Surprise by silence. Medjerda, Tunisia—1943. Surprise by weight of fire at the time of day when it was likely to be most effective.*)

Never enter the hills in order to fight. Only enter them if you decide that there is an easier route through them to your objective than on the plains. Once you do enter them, *go fast* or the enemy will "seal up" ahead and a weakly held defile at once becomes formidable. (*Matmata—1943.*)

Never attack without surprise. (*Medjerda—1943; Garci., where the attack was voluntarily stopped at once directly the sands of surprise ran out, and not renewed.*)

If you attack at night, be "balanced" by daylight, *i.e.*, either sufficiently on top of your enemy to be able to continue the attack without fear of being knocked off balance by counterattack or so settled that you can repel that counterattack. (*Battle of Medjerda.*)

What is almost impossible is often the best plan because you see that you can do it and the enemy thinks you can't.

These are a few of the more obvious rules of war; it is now your turn to produce a few less well-known rules. Try this bit from Marshal Saxe as an introduction to one of your rules!

"When you are in the presence of the enemy under arms and you see the soldiers changing shirts, it is certain that you are going to be attacked, because they put on all their shirts, one over the other, in order not to lose any. . . ."

A Youthful Team

"Twelve men whose average age is only 42 are planning the air offensive against the Germans in France. Only three are over 45; five are under 40; and the youngest is 28.

"Air Vice Marshal Horace Wigglesworth, Senior Air Staff Officer, is 48; Major General Hoyt Vanderberg, the American Deputy C-in-C., is 45; Lieutenant-General L. Brereton, commanding the 9th U.S.A.A.F., is 54; Brigadier-General Richard Nugent, of Advanced H.Q., is 41; Brigadier-General Frederick Smith, Deputy to Air Vice Marshal Wigglesworth, is 36. Air Marshal Sir Arthur Coningham, C-in-C., R.A.F., 2nd Tactical Air Force, is 49; the Group Commanders, Air Vice Marshals Basil Embry and Harry Broadhurst, are 42 and 38. Brigadier-General Samuel Anderson, C-in-C., 9th Bomber Command, is 38, and Major-General E. R. Quesada, who commands the 9th Fighter Command, is 39.

"The youngest two of the team are Brigadier-General Herbert Thatcher, who at 34 is commanding a bomber wing, and Brigadier-General Richard Sanders, aged 28, administration officer, 9th Bomber Command."—"The Times."

A "PACK PONY" BALLAD

By H. F. H.

I took down the Urdu of this ballad after hearing it sung by our pack-pony-walas during the tramp to Sissu. They chanted it to a shrill warbling air that was rather attractive, and I suspect they chose it because the journey described in the first two verses was the very same that we were making. Ajri appears to have been a village Delilah, and the singer a company clerk whom she cleaned out of his money. In the first two verses he describes the journey he wanted her to take. In the third verse, he tells how she had robbed him, and how he once got his own back by paying her in base coin. In the fourth verse, she taunts him and tells him to be off and join the Army. In the last verse, the infatuated fellow returns to his pleading. My translation is literal line for line.

URDU

I

Chuki lena Ajri, chuki lena;
Kyelong gara lo sare chuki lena.
Dekhi lena, Ajri, dekhi lena
Sissu wala dak bungli dekhi
lena.

II

Dekhi lena, Ajri, dekhi lena,
Gondli wali sarai jo chali jana.

Dekhi lena Ajri, dekhi lena,

Chamba ki chakana dekhi lena.

III

Tu luti lena, tu luti lena,

Company-wala babu tu luti
lena.

Sissu walla dak bungli dekhi

Pi lena, Ajri, pi lena ho,

Mushk ki sharab pi pi lena.

Tu thagi ho, Ajri, tu thagi ho

Khote rupie kane tu thagi ho.

IV

Meri jan, Ajri, meri jana ho.

Tere fikr men meri jana ho.

Meri jan, Ajri, meri jana ho

Rangruti di bharti jo chali
jana ho.

V

Chadi dena, Ajri, chadi dena,

Ek din anna kane babu chadi
dena.

Pi lena, Ajri, pi lena ho,

Kyelong gara pi pi lena ho.

ENGLISH.

I

Come, Ajri, come away with me
To Kyelong and there abide.
See, Ajri, that's the road you
see
Sissu Dak Bungalow beside.

II

And look, my Ajri, look, we two
At Gondla Inn will take our
rest,
And after, Ajri, see the view

Of Chamba, of all vales the
best!

III

You robbed me, robbed the
head-babu.

(Drink Ajri, drink this wine so
sweet).

But, Ajri, who was tricked but
you.

For my fair coin was counter-
feit.

IV

Ah! Ajri, I can ne'er exist
Without you if you stay unkind.
I surely die. "Nay, go enlist,
Better a soldier's death to find."

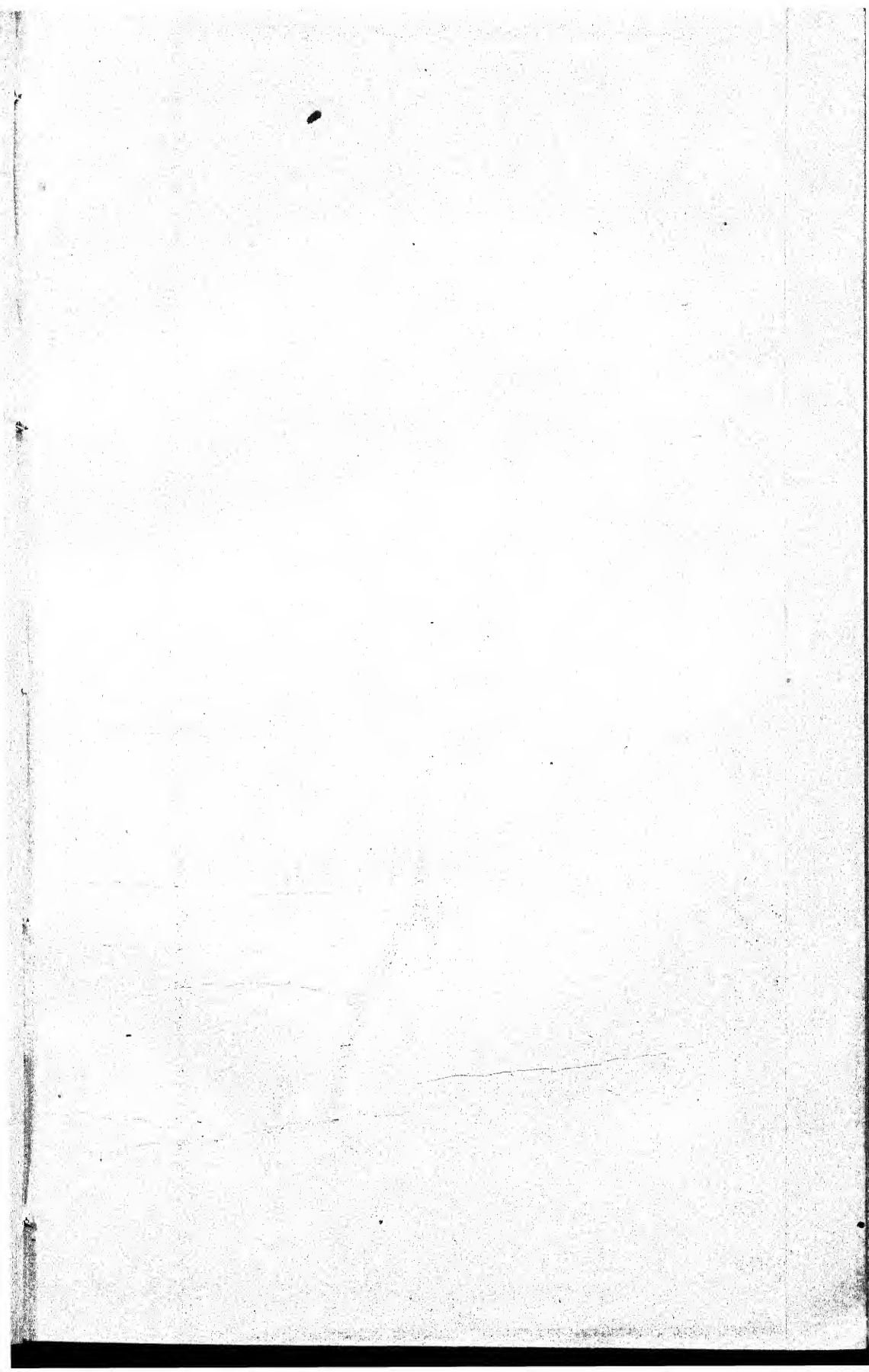
V

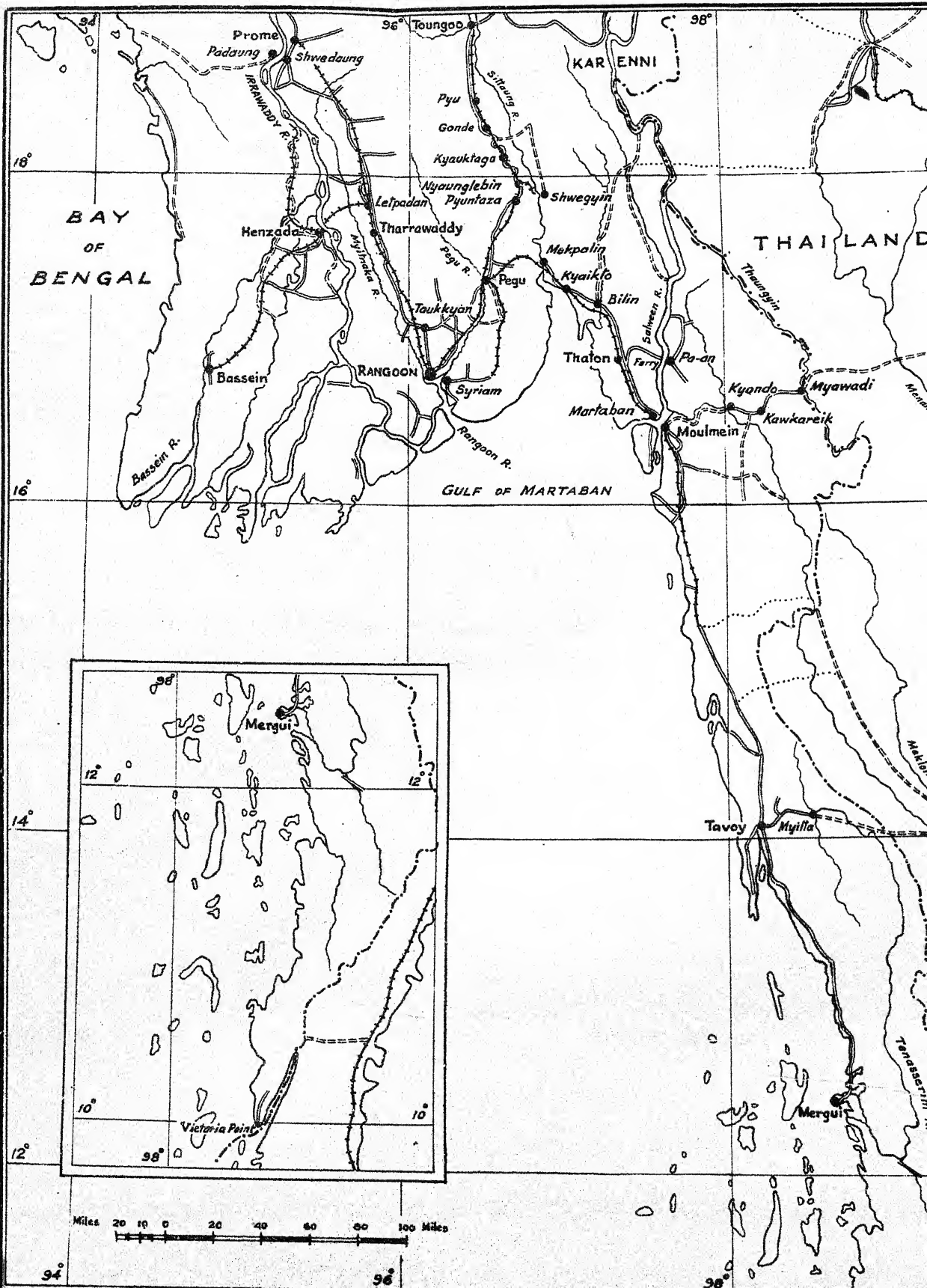
Break, Ajri, break to-day the
link

That binds you to your home
so dear.

At Kyelong, my Ajri, drink

Oh drink, the wine that waits
you there.





THE FIRST BURMA CAMPAIGN—I*

By COLONEL E. C. V. FOUCAR

THE FIRST Burma Campaign gave rise to considerable criticism, much of it hasty and uninformed; but not yet can there be a full discussion of our preparations and strategy, nor of many other matters of importance.

This narrative avoids controversial subjects and is mainly an outline of the actual fighting. For a proper understanding of the story, however, it is necessary to sketch the military appreciation of the situation and the state of our forces in the country on the outbreak of hostilities with Japan.

Of the political situation it is proposed to say nothing, save that there were men in Burma opposed to British rule, and that a number of Burmese who later formed the nucleus of the so-called "Burma Independence Army" assisted the Japanese. Undoubtedly the bulk of the population was primarily concerned in avoiding the repercussions of war.

The eastern frontier of Burma, protected by rugged jungle-clad mountains forward of the unbridged Salween, was considered a formidable natural barrier to invasion. The only motor road from Thailand crossed the frontier at Tachilek in Kengtung and, traversing the Southern Shan States, joined the main Rangoon-Mandalay road at Meiktila. It was thought that a Japanese invasion in force, if attempted at all, must follow this long road rather than the few short but difficult routes further to the south.

At that time the mobility of Japanese armies was not realised, otherwise the great advantages of an immediate thrust at Rangoon would not have been discounted. A successful southern attack must sever our forces from their only base, Rangoon; it would prevent entry of supplies and reinforcements from India; it would cut China's lifeline, the Burma Road; and the moral effect on the people of Burma must be great.

In 1941 the Empire, desperately hard pressed, remained very short of essential weapons and equipment. The United Kingdom and active theatres of war naturally received priority. Grave risks had to be taken somewhere and, quite rightly, were allocated to the Far East. The result in Burma was that our small forces were ill equipped. For the same reason India, although she had great reserves of men, was unable to provide adequate help or reinforcements. Men cannot fight, or trained to fight, without weapons.

The greater part of Burma's regular Army comprised battalions of the Burma Rifles, many of them new wartime raisings. In early December 1941 there were four Brigades in Burma, two of them Indian Brigades. Three of these Brigades formed the Burma

*The present campaign now being fought in Burma lends added interest to this authoritative account of the first Burma Campaign, written by a contributor who has made a close study of the subject, and who writes with first-hand knowledge.

Division commanded by Major-General J. Bruce Scott, M.C. There were, in addition, a few battalions on internal security, the semi-civil units of the Burma Frontier Force and Burma Military Police, and some Auxiliary Force units. There were only two British Battalions, the Glosters and the K.O.Y.L.I.

In the early stages of the campaign Headquarters of the 17th Indian Division (Major-General J. G. Smyth, V.C.) arrived. So, too, did three additional Indian Brigades, 4 British Battalions, and the Armoured Brigade. This last was a seasoned formation; but many of the Burman and Indian troops were young and by no means fully trained. Early losses in men and material were heavy, and after the evacuation of Rangoon could not be replaced. In the field were never more than two fast dwindling Divisions and the hard-worked Armoured Brigade.

Behind the fighting front the undermanned military administrative machine faced an equally uphill task. The unending jugglery of providing almost non-existent arms and vehicles; the maintenance of essential services such as railways, river transport, telephones and telegraphs; the immense task of feeding the Chinese Armies with no organisation of their own for this purpose, were only some of many urgent problems. All available civilians, office managers and their assistants, miners, planters, joined up to help. Makeshifts and improvisations were the order of the day. They worked, and the Army was kept in being. This account can do no more than record these facts, and pay tribute to Major-General Goddard, in charge of Administration, and the men under him.

A word about the topography of Burma. The great rivers, the Irrawaddy and the Salween, flow south. Between them runs the lesser Sittang. The Chindwin, main tributary of the Irrawaddy, flows through the thinly populated forests and mountains bordering Assam; turning south-east it joins its parent stream below Mandalay.

Mountains form every land frontier, and thrusting south from the Himalayan massif like the open fingers of a giant hand long ranges separate the rivers just mentioned. In 1941 the vast jungles between these river valleys were roadless. In fact, generally speaking and save for the Shan States where communications were better, all the main roads followed the Irrawaddy and Sittang valleys. The main railway lines were similarly disposed. There was no road to India, only a few tracks crossing the Assam border west of the Chindwin.

In the Irrawaddy Delta and in the Sittang and Salween valleys are flat expanses of paddy land. In Central Burma lies the Dry zone. Here, beside the Irrawaddy and amidst barren hills deeply scored by *mullahs*, in 1941 towered the gaunt derricks of the oil-fields.

* * *

The campaign opened quietly. The Japanese occupied Victoria Point, the southern extremity of Burma, and small enemy forces displayed some activity in the region north of the Point. Tavoy and Mergui were bombed.

The main incidents of this early period were the air attacks on Rangoon on December 23 and 25, 1941. They did little military damage, but the first raid caused very heavy civilian casualties, resulting in the immediate flight of labour and the paralysis of the port. Thenceforward until its final evacuation the city functioned uncertainly. Our handful of A.V.G. and R.A.F. fighters had taken a heavy toll of the raiders, and shattered aircraft littered the paddy fields and jungles. Not again in daylight did the Japanese penetrate the air defences of Rangoon.

On December 27 Lieutenant-General T. J. Hutton, C.B., M.C., assumed command of the Army in Burma. Meanwhile, it became evident that the enemy was preparing to invade Tenasserim. Our reinforcements entering the country went to that area, and formations covering the Shan States were thinned out, every available unit being brought south. For the protection of more than 1,000 miles of frontier contiguous to Indo-China and Thailand our forces were wholly inadequate, and only the obvious danger points could be watched.

Towards the end of December the first troops of the Chinese VI Army entered the Shan States, taking over the Mekong river sector. More units followed in January. Subsequent arrangements ensured that the entire Chinese VI and V Armies, already earmarked, should protect the Shan States, Karenni and, the Sittang valley about Toungoo, and so release the Imperial forces for employment in south Burma.

The enormous distances to be covered, lack of transport, and the limited capacity of the Burma Road, the only real line of communication with China, made these movements a lengthy undertaking. The Chinese Armies in Burma were under the British Commander. Their own Commander was Lieutenant-General J. Stilwell of the United States Army, with whom was associated General Lo of the Chinese forces. There was always the closest co-operation between General Stilwell and our own command.

In southern Burma, in early January 1942, 17th Division held Mergui, Tavoy, Moulmein, and Kawkaik. Burma Frontier Force columns patrolled the Thai border. At the first three places named were important airfields on the route to Malaya and Australia; but a glance at the map indicates the difficulty of defending the Tavoy-Mergui area with its poor land communications with the rest of Burma.

On January 15 the Japanese began an advance on Tavoy, having crossed the frontier by a little used track east of Myitta. For the first time our troops in Burma experienced the jungle tactics of the enemy and were unable to offer serious opposition. Tavoy fell on the morning of January 19. The garrison of Mergui was thus isolated, and steps were at once taken to withdraw it by sea after the carrying out of demolitions.

Our force forward of Kawkaik, recently increased to a Brigade in strength, covered the road through the Dawna mountains to the frontier village of Myawadi. Here before dawn on January 20, the Japanese 55th Division advanced on a broad front.

At once the situation became confused. Two forward companies were isolated, and south of the road an enemy column with transport elephants made good progress along jungle paths. Hostile aircraft were active, heavily bombing our main positions. We fell back towards Kawkareik.

If the Japanese gained the open plain west of the Dawnas our Brigade would be cut off, and the Commander had been ordered not to let this happen. Accordingly, on the night of January 21/22 he withdrew from Kawkareik. At the crucial moment the primitive vehicle ferry across the Haungtharaw river became blocked by a truck which slipped into the stream. This effectively cut the only motorable road, and necessitated the abandonment and destruction of all vehicles and quantities of equipment and stores.

The Brigade then crossed the Gyaing river and was later carried by steamers to Martaban. Some days afterwards it was re-joined by the two missing forward companies. These had fought their way back.

The next Japanese objective was Moulmein, the port on the east bank of the Salween just below its confluence with the Gyaing and Ataran rivers. Long and narrow, the town is pinned to the river by The Ridge. This pagoda-crowned height dominates Moulmein.

The defence was entrusted to a Brigade Group made up of a Mountain Battery, a troop of a Light Anti-Aircraft Battery, three Battalions (less two Companies) of Burma Rifles, and a Battalion of the 12th Frontier Force Regiment. The perimeter, a long parallelogram, included the waterfront on the west and north, ran east of the Ridge, and from the southern end of the Ridge went back to the Salween. The airfield, surrounded by jungle and rubber plantations, lay outside the perimeter south-east of the town. It was held by a Burma F. F. detachment.

Communication with Martaban, some two and a half miles upstream on the west bank of the treacherous river, was difficult. The steamers were manned by civilian crews. These factors added to the problems of defence.

The attack opened on the morning of January 30 with a typical Japanese attempt at a surprise. Four of our own lorries, previously captured by the enemy, rapidly approached the road block in the southern face of the perimeter. Suddenly fire was opened from the vehicles; but our troops were on the alert, and the ruse failed. A heavy general attack from the south and east then quickly developed. On the east the Japanese made some progress, but were halted by the 12th Frontier Force Regiment covering the Ridge. The Mountain Battery gave our forward troops excellent support, also assisting the hard-pressed garrison of the isolated airfield.

Towards nightfall the Japanese redoubled their efforts to take the Ridge, but were repeatedly repulsed. Close fighting continued, and to strengthen his position the Brigade Commander withdrew the southern face of the perimeter by about 1,000 yards. The gallant defenders of the airfield were recalled.

Before dawn of January 31 the situation deteriorated. The enemy had landed at the northern end of the town and was pressing our Brigade on three fronts. Consequently, a withdrawal across the river was ordered.

Parties of Japanese broke through our lines. Determined counter-attacks flung them back. Keeping the box of their defences closed, our troops fell back fighting through the streets to the jetties. Under fire the greater part of them embarked. The river steamers were shelled and machine-gunned as they crossed the Salween but, luckily, hostile aircraft confined their attentions to Martaban.

In south Burma we were now on the line of the Salween, a strong position if adequately held. 17th Division was insufficient for this purpose, yet we could not afford to yield ground. Time must be gained for the arrival in Rangoon of reinforcements. The protection of the port required the maintenance of the forward warning system ensuring the safety of our small air force based on Mingaladon and its satellite airfields round Rangoon.

The lower reaches of the Salween and the coastal belt were the danger points. Here the enemy could gain access to the plain between the mountains of Karenni and the sea. This plain is mainly paddy land cut by many tidal creeks. Inland, towards Karenni, the terrain becomes rugged, much of it covered by dense jungle. Across the plain runs the Rangoon-Martaban railway. In 1942 a motor road joined Martaban and Kyaikto, whence to the Sittang railway bridge a road was projected. It was then merely an unsurfaced track. The bridge itself was planked over to carry our motor transport. This road and railway formed our line of communication, the Sittang bridge being the vital link with Rangoon and central Burma.

We held Martaban and Kuzeik, the latter being opposite Paan and an important ferrying point. Patrols watched the river and coastal belt, but could not prevent infiltration. Japanese bombers were active over Kuzeik and Martaban, and our Martaban positions were frequently shelled from Moulmein. Our own aircraft harassed hostile concentrations.

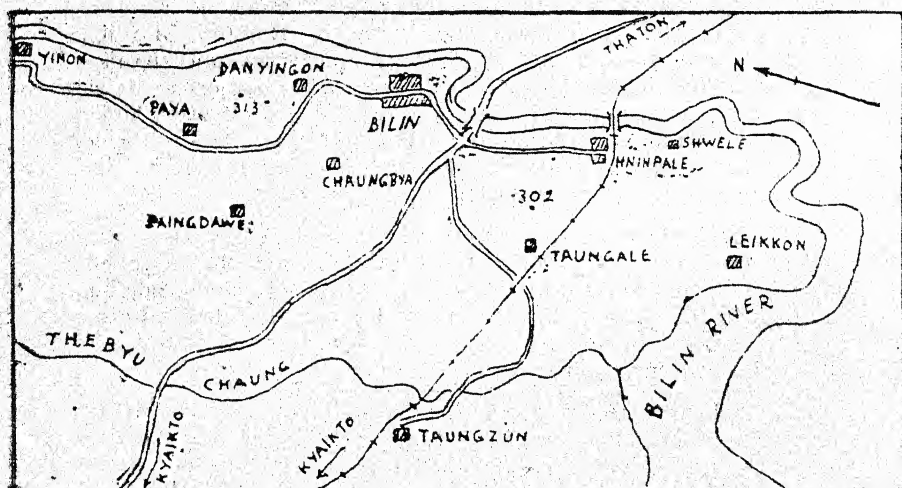
On February 10 the enemy made landings in force on the coast west of Martaban, establishing a block on the road between that place and Thaton. Near Martaban a company of the 7th Gurkha Rifles routed a body of Japanese; but the Martaban positions had been by-passed, and that night the garrison marched across country to rejoin its Brigade at Thaton.

A Battalion of the 10th Baluch Regiment held Kuzeik. Crossing the river both above and below the Battalion, the Japanese on the night of February 11/12 launched a general attack on the Kuzeik position. The enemy strength was estimated at a regiment. Throughout the hours of darkness bitter fighting continued. Young and untried, the Baluchis acquitted themselves magnificently in an epic battle until sheer weight of numbers overwhelmed them shortly after daybreak. Some seventy officers and men escaped death or capture.

There were now signs that the Japanese were moving round our left flank along jungle tracks north-east of the main road. Our forward Brigade fell back from Thaton, and 17th Division took up a position behind the Bilin river.

A Brigade group held a 7-mile front from Leikkon on the river estuary through Bilin to the north of Danyingon village. On the right, or southern, flank the 9th Jats kept the sector from Shwele to just south of Bilin where a Battalion of Burma Rifles was stationed. The line was then continued by the K.O.Y.L.I. to a point north of Danyingon, with a detached company further to the north at Yinon. South of Shwele the front was held by patrols, whilst east of the river the 17th Dogra Regiment and a company of Burma Rifles covered the main road from Thaton and the undamaged road bridge. Burma Frontier Force columns watched the northern flank and the coast. The 7th Gurkha Rifles were in Brigade Reserve.

Behind the main position the Gurkha Brigade was in Divisional Reserve astride the main road near the Thebyu Chaung. The third Brigade held Kyaikto. The river was fordable in many places, and except for the coastal strip the country was hilly and covered with large patches of jungle and rubber. For the limited number of troops available the line was not easy to defend.



BILIN RIVER LINE [NOT TO SCALE.]

Shortly after we were in position on the morning of February 16 the enemy, who had moved fast, was in contact with the K.O.Y.L.I. in Danyingon. Despite our repeated attacks the village could not be cleared and the line was established to the west.

Next morning a Battalion of the 7th Gurkhas assaulted the village and carried most of it. Pockets of resistance remained, the Japanese also holding Point 313, a dominating height to the north-west. That afternoon the 4th Gurkha Rifles attacked with artillery and mortar support. They captured Point 313, which thereafter remained in our hands and made an excellent O.P. for our guns.

The heavy fighting in the north left the Brigade without reserves, and that evening the 17th Dogras were withdrawn across the river. They were engaged with the enemy at the time, and the movement was carried out under heavy and accurate mortar fire. The road bridge was then blown. After nightfall parties of the enemy crossed the river and entered Bilin.

It had become apparent that a single Brigade Headquarters could not control the extended jungle-broken front. The 5th Royal Gurkha Rifles had come forward, and on the night of February 17/18 the line was reorganised in two Brigade sectors.

On February 18 the situation deteriorated. Carriers proceeding to Yinon ran into a block half a mile south of Paya, and determined attacks failed to clear the road. From Point 313 bodies of men could be seen moving west through the jungle. Behind the southern flank the enemy landed west of the estuary, and along the whole front we were closely engaged.

The Japanese plan was to pin our forces to the Bilin line with their 55th Division. Meanwhile, their newly-arrived 33rd Division, moving through the gap between Point 313 and Yinon, struck for the vital Sittang bridge.

To counter the northern outflanking move the 12th Frontier Force Regiment was brought up from Kyaikto to sweep the hills from Paingdawe towards Paya village. This it did on the morning of February 19, and in face of heavy opposition occupied a ridge overlooking Paya. Later it was ordered to withdraw to a position about Chaungbya.

In the coastal area the 5th Royal Gurkha Rifles were that day engaged with the enemy at Taungzun and near Taungale, villages on the railway much behind our line. The 9th Jats, south of Bilin, found the enemy holding Point 302 west of Hninpale and behind them.

With both flanks seriously threatened, and with no reserves left, it was time for 17th Division to withdraw. Behind it lay the far stronger line of the Sittang, where open paddy lands provided a good defensible position. Reinforcements, including tanks, were expected. Therefore, to continue to stand on the Bilin against superior numbers was clearly unwise.

The danger of the Sittang position was its proximity to Rangoon. Both the main road and railway from Rangoon to Mandalay ran close to the river. In addition, our aircraft could not then count on warning against hostile raiders. In the Bilin battle they had given our ground forces splendid assistance.

On the night of February 19 orders were issued for a general withdrawal before first light next morning. Fighting continued all night, but contact was successfully broken, although the 9th Jats who were surrounded by the enemy were unable to get clear until mid-day. The two Brigades fell back on Kyaikto. From Yinon the K.O.Y.L.I. company marched across country on receiving an order dropped by aircraft.

Before dawn on February 21 a sudden attack was made on Kyaikto, where Divisional Headquarters still remained. The attack was easily beaten off, but it indicated that the Japanese were pressing forward. Their 33rd Division, unhampered by transport, was then advancing by jungle tracks well north of Kyaikto.

We now suffered from the restricting effect of our motor transport. Uneven and already several inches deep in dust, the 15-mile long track between Kyaikto and the Sittang was a bottleneck. Cut brushwood, recently cleared from the road trace and flung back to the fringes of the jungle, made a formidable enclosing obstacle. Along this vulnerable route 17th Division began to move on February 21.

That afternoon and evening our troops and transport were heavily bombed. There were many casualties, mules were stampeded, motor vehicles were wrecked, and the track was cratered. Considerable disorganisation resulted. To add to the trials of our men it was a day of intense heat, dense clouds of dust enveloped the track, and there was a shortage of water.

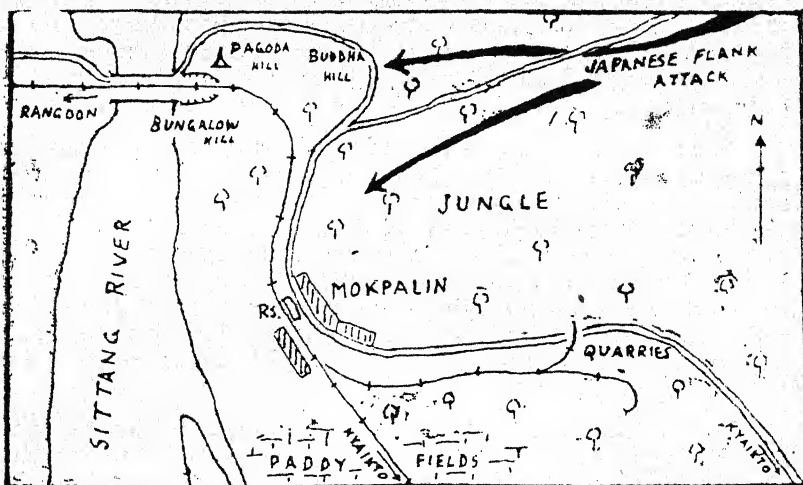
That night a covering force held the Sittang bridgehead, whilst the remainder of the Division was spread along the road between the Mokpalin quarries, some three miles short of the bridge, and the Boyagyi rubber estate just west of Kyaikto. At Boyagyi were two Brigades. The intention was that the Division should cross the Sittang next day.

Burma Frontier Force columns covering the northern flank on that same afternoon of February 21 were in action. The columns were out of touch with the Division and no information of these operations was received. Hence, although a Japanese outflanking move was suspected, there was no definite knowledge of it.

Late that night Divisional Headquarters ordered the two rear Brigades to march as early as possible next morning. The Commanders had already decided on this, but their movements necessarily depended on that of the troops and the mass of transport ahead. Vehicles began to cross the bridge that night. Progress was slow; then the over-turning of a lorry on the bridge stopped all traffic for three hours, and a growing column of double banked and halted transport extended east for some miles.

To understand subsequent events a brief description of the area is necessary. Save for Mokpalin village itself and an expanse of paddy land to the south, the ground on the east of the Sittang was jungle covered. Leaving Kyaikto, the track and railway south of it diverged to meet again at Mokpalin about a mile and a half south-east of the bridge. The two routes run side by side for about a mile until the railway turned west to approach the river by a cutting through a bluff, Pagoda Hill. The track, sweeping widely north-east and then west, rejoined the railway at the bridge. The sweep of the road enclosed the bluff, Pagoda Hill, and Buddha Hill to the east of it. South of the railway cutting was another rise, Bungalow Hill. Just above the bridge a steamer ferry had been established for the transport of animals. The river,

tidal and fast flowing, was five hundred yards wide at the bridge and broadened immediately below it.



SITTANG BRIDGE AREA [NOT TO SCALE]

Divisional Headquarters, the 4th Gurkha Rifles, and Headquarters of the Gurkha Brigade were across the Sittang by dawn. Shortly afterwards the Japanese, breaking out of the jungle to the north-east, unexpectedly attacked the bridgehead. The attack went through the covering force, overran an Advanced Dressing Station, and almost reached the river. Two companies of the 12th Frontier Force Regiment at once counter-attacked and retook the bridgehead defences.

Much disorganisation had been caused, and the situation was then so serious that the destruction of the ferry steamers and of 300 sampans assembled on the west bank was ordered. Whilst all this was happening other parties of Japanese thrust south to attack our few troops and the now stationary transport in Mokpalin.

At 09.30 a third attack developed against our rear Brigade at that time some five miles east of Mokpalin. Here a block had been put down, and with the cut brushwood blocking the jungle on each side of the track our troops were in an unenviable position. The whole Brigade came under small arms and mortar fire. Pushing into the jungle our men sought to engage the enemy. There was confused fighting in the dense undergrowth as the column strove to continue its advance. Three distinct actions were in progress, at the bridgehead, in Mokpalin, and on the track to the east. In all these the Japanese 33rd Division appears to have been engaged.

The bridgehead force, augmented by all available troops, now comprised the 12th Frontier Force Regiment, the 4th Gurkha Rifles, the very weak 10th Baluchis, the remnants of a Burma Rifles Battalion, and a company of the Duke of Wellington's Regiment. Its positions covered the high ground round the railway cutting and included Bungalow Hill.

In the earlier fighting in Mokpalin the 3rd Gurkha Rifles and the 5th Royal Gurkha Rifles played the main part. At the outset the 5th Gurkhas were the only infantry near the village and cleared it in splendid style. Without artillery support and with a single mortar in action, two companies of the Battalion then assaulted Buddha Hill. Under intense mortar fire they could do no more than hold the ground north of the village.

Some of our guns and the 3rd Gurkhas arrived, and another attack was planned. Our guns were grouped near the Railway Station. No wireless communication with Divisional Headquarters west of the Sittang could be established, and this lack of communication was to have serious consequences throughout the Sittang battle. With artillery support, the 3rd Gurkhas, intending to clear the road and break through to the bridgehead, attacked Buddha and Pagoda hills. Unfortunately, part of the artillery concentration fell on our own bridgehead positions which under orders were temporarily evacuated.

Making good use of bayonets and automatic guns the 3rd Gurkha Rifles stormed Buddha Hill. Two platoons on the left broke through to the bridgehead. The Japanese then threw in reinforcements, sealed off the bridgehead, and isolated Buddha Hill from Mokpalin. Despite this the forward companies of the 3rd Gurkhas, every British officer a casualty, clung to their positions.

Towards evening the rear Brigades arrived in the village. The attack on the track to the east had been beaten off, but at heavy cost. In this fighting the 7th Gurkhas, the 17th Dogras and the Duke of Wellington's participated.

Following up along the track and railway the Japanese 33rd and 55th Divisions now closed in, and that night the situation round Mokpalin was most confused. Many units had become intermingled, but a perimeter about the village was firmly held. Fighting went on all night. There was no communication with Buddha Hill or the bridgehead, although some stragglers made their way into the latter by following the river bank.

At the bridgehead nothing was known of the situation in Mokpalin. Enemy pressure was maintained against the defences all night, and it was doubted if we could hold the bridge against a dawn attack. There were almost no troops west of the river, and the Japanese capture of the bridge would result in a major disaster. Accordingly, covering troops were withdrawn and the bridge was blown at 0530 hours on February 23. The effect of the tremendous explosions was remarkable. For a brief period there was a dead silence. Then the Japanese broke into excited shouts and chatter, and the battle continued.

During the morning aircraft bombed our positions and the massed transport in Mokpalin. Large fires broke out. Still closely engaged, our troops were now exhausted: the 3rd Gurkhas on Buddha Hill, with no ammunition but fighting to the last, had been overrun. The Brigadier in command decided that an attempt must be made to cross the river that day. Orders to this effect were issued, but could not be communicated to some forward posts.

Guns were disabled, and other weapons were thrown into the Sittang. Bamboos, petrol tins, and all available articles were utilised for building rafts, and on these as many as possible of the wounded were got away. Then the greater part of our troops fell back and began to swim the river under heavy fire. Many displayed great heroism in assisting the wounded and those who could not swim. Not a few failed to make the crossing. From the area of the broken bridge the Japanese had withdrawn, and here an officer and two N.C.Os. of the Duke of Wellington's Regiment swam the river. Returning with ropes they constructed a life line between the piers of the bridge. Themselves remaining in the river under fire, these three men then assisted large numbers to cross to the west bank.

Isolated posts continued to fight the Japanese, and in this final phase men of the K.O.Y.L.I. and Burma Rifles were conspicuous. Later these posts were also withdrawn, and more of our men crossed the Sittang. Resistance on the east bank finally ceased on the morning of February 24.

We had received a staggering blow, and could not now hold the river line. 17th Division was temporarily an unarmed body without transport. It had only the few guns brought across the bridge, whilst losses in mortars, automatic weapons, and rifles were very high. Many men were without boots or clothes. Had the Japanese been able to follow up their successes at once they must have gained an overwhelming victory. But their casualties were severe, and they paused to reorganise.

The Armoured Brigade had landed in Rangoon on February 21. With the Cameronians and the West Yorkshire Regiment it was rushed to the Pegu area, where it covered the reorganisation of 17th Division. Once again we had a small force quite inadequate for its task. This was made no easier by the masses of Indian refugees passing through our lines, and the depredations of gangs of Burmese. Much north of Pegu the Burma Division, relieved in the Shan States by the Chinese VI Army, was concentrating in the Nyaunglebin area to cover the main road and railway to Mandalay.

There was a gap of over 20 miles between our two forces, and the enemy was not slow to take advantage of this. By February 27 he was across the Sittang. Soon he had well defended roadblocks at each end of the gap. He did not like our tanks, and suffered several hard knocks from the Royal Tank Regiment, 7th Own Hussars and their supporting troops. This delayed his advance on Pegu.

However, Japanese columns marching by night through the gap gained the dense forests of the Pegu Yomas, the range separating the Irrawaddy and Sittang valleys. Moving by jungle paths the enemy then struck south-west towards Rangoon, our patrols and aircraft observing this advance. In the Rangoon river estuary parties of Burmese under Japanese officers had landed; other bodies of Burmese were creating disorder.

These facts all indicated that our small southern force could not cover Rangoon for long. The few R.A.F. bombers had already moved to Magwe in Upper Burma, using landing strips near Rangoon as forward bases. Fighter aircraft of the R.A.F. and A.V.G. continued to protect the port where, in the first days of March, an Indian Infantry Brigade disembarked.

At this juncture, on March 5, Lieutenant-General Sir Harold Alexander arrived to take command of the Army in Burma. He had been appointed by the War Cabinet in view of the proposed great expansion of our Burma forces, and was promoted General early in April. Lieutenant-General Hutton remained as C.G.S.

On March 6 General Alexander ordered the carrying out next day of the denial scheme and the final evacuation of Rangoon. The general evacuation of civilians had already been effected on February 21. The Rangoon garrison, 17th Division, and the Armoured Brigade were to fall back to the Irrawaddy valley along the road to Prome, whilst advanced Army Headquarters, still in Rangoon, would join rear Headquarters at Maymyo.

Heavy fighting had broken out round Pegu on the morning of March 6, assaults on the town being made from the north and west. The Gurkha Brigade, with the Cameronians and the West Yorkshire Regiment, held the town. The area round the railway station was bitterly contested, hand to hand fighting going on all day. Here the British battalions and the 4th and 7th Gurkha Rifles were engaged. Four miles south of the town, in a patch of jungle astride the main road to Rangoon, the enemy set up a most effective block.

North of Pegu the 7th Hussars were fighting a separate action, supported by a company of the West Yorkshire Regiment. Four guns were captured and, later, three enemy tanks destroyed. It was long before Japanese armour again sought conflict with our fighting vehicles. In the afternoon the 7th Hussars concentrated in Pegu, and the imminent evacuation of Rangoon now required a general withdrawal. This was planned to begin early next morning. The road block to the south was to be attacked as soon as the ground mist had cleared.

The road bridges over the river and railway in the town were blown at first light, and troops and transport moved out. The rear-guard was at once attacked, but held off the enemy. Soon, however, the whole column came under mortar and machine gun fire from positions west of the road. Japanese snipers were posted in trees and house tops, and parties of the enemy broke through to the road. A fine bayonet charge by the 4th Gurkhas, led by their Commander, eased the situation.

The guns of the R.H.A. battery attached to the Armoured Brigade concentrated on the block, then the 7th Hussars with a company of the West Yorkshire Regiment stormed forward. Some transport followed: but the road was packed with derelict vehicles, and there was a delay. Having forced the block the tanks and guns went on. The enemy closed in and re-established his position. Unsupported attacks had now to be made by the infantry and finally, in the afternoon, the block was again cleared by companies of the Cameronians and West Yorkshire Regiment. It had been a costly battle.

On that day, March 7, the oil refineries and installations at Syriam and elsewhere were demolished, and in Rangoon the telegraph office, telephone exchange, and other public and port utilities were destroyed. As the last demolition parties withdrew by road and ship the city lay deserted beneath a great pall of smoke.

The abandonment of Rangoon was a catastrophe of the first order. Although necessary if we were to save our forces and continue the struggle in Burma, it meant the severance of our communications with India and the loss of many base facilities unavailable elsewhere in the country. Henceforth we had to rely for additional supplies and men on the few transport aircraft in India. Work had been begun on the construction of a road between Kalewa on the Chindwin and Imphal in Manipur State, but it would be many months before it could be brought into use.

Fortunately, Burma had large stocks of rice and other food-stuffs, and sufficient of these existed or had been moved upcountry to maintain our troops and the Chinese for several months. To counter the loss of the Rangoon refineries, the production of petrol and lubricants on the oilfields themselves was stepped up. As long as we held the oilfields our motor transport could continue to operate.

Marching through the Pegu Yomas the Japanese reached the Promé Road on the morning of March 7, and north of Taukkyan, near Milestone 26 from Rangoon, the road was blocked. As usual this was in a stretch of jungle. Army Headquarters and the Rangoon garrison halted at Taukkyan. At that time 17th Division and the greater part of the Armoured Brigade was at Hlegu, seven miles to the east, or in action near Pegu.

The situation was very serious, and there were not many fighting troops available. Two tanks of the Queen's Own Hussars attempted to break the block but were compelled to fall back. Then, supported by the few guns present and two A.F.V's., two platoons of the Glosters went forward. Heavy mortar and anti-tank fire knocked out the carriers, and snipers posted in trees stopped our infantry. Two further attacks by the 13th Frontier Force Rifles also failed.

It was now 1730 hours, but already growing dark under the vast smoke cloud caused by the burning refineries. Army Headquarters and the troops at Taukkyan accordingly leaguered in a rubber plantation, and General Alexander issued orders for an attack in force by infantry and tanks at first light next morning.

However, before this attack had time to develop, it was found that the block had been abandoned by the enemy. The remaining snipers and nuisance parties gave little trouble. On the other hand, enemy aircraft were active and some of our units suffered considerably.

Why the Japanese abandoned the block remains a mystery. Possibly it was held only to protect their left flank as they swung south for Rangoon; and there seems little doubt that when our troops were marching north the Japanese west of the Promé road were moving in the opposite direction. It may be that they thought we intended a withdrawal by sea and that the best means of preventing this was to seize Rangoon.

The Japanese advance on Rangoon, like the earlier dash for the Sittang river and the initial moves across the Burma frontier, displayed a remarkable knowledge of unfrequented jungle tracks. This same knowledge was to be exhibited again in the course of the campaign. It could only have been the result of careful pre-

paration and assistance, enforced or otherwise, of men on the spot.

By March 10 the Armoured Brigade and 17th Division, now commanded by Major-General D. T. Cowan, were reorganising in the Tharrawaddy area, and in the ensuing fortnight fell back towards Prome. During this period the Royal Inniskilling Fusiliers, flown in from India, joined 17th Division, and the Glosters became its reconnaissance unit. As such the Battalion distinguished itself in an attack on Letpadan when the Japanese were driven from the town, and in a further successful engagement at Paungde.

Another heartening minor operation was carried out on the Irrawaddy, which was patrolled by a Royal Marine detachment in a flotilla of launches. This detachment accompanied a Commando force to Henzada, where a landing party encountered a force of Burmese rebels and inflicted heavy casualties on it.

Our withdrawal towards Prome was occasioned by General Alexander's decision to concentrate the Imperial forces in the Irrawaddy valley and to make over the defence of the Sittang valley to the Chinese V Army. The Chinese proposed to stand at Toungoo, and we moved north to come into alignment. On March 19 Burcorps was formed under the command of Lieutenant-General W. J. Slim, M.C., Burma Division being ordered to join the Corps as soon as the Chinese concentration was complete.

It now becomes necessary to follow briefly the earlier fortunes of Burma Division in the Sittang valley. On March 11 two Brigades attacked Pyuntaza on the main Rangoon-Mandalay road, and Madauk and Shwegyin on the Sittang river. The initial stages of the attack on Pyuntaza succeeded. The 7th Rajput Regiment carried the town and a road block south of it. The Japanese at once counter-attacked in superior numbers, the Rajputs being forced back. Eventually a line was established north of Pyuntaza.

Against slight opposition Madauk was taken by a Burma Rifles battalion, whilst the 1st Punjabis assaulted Shwegyin then occupied by Burmese rebels. There was heavy street fighting; but the Punjabis cleared the town, killing 50 of the enemy and taking 40 prisoners at small loss to themselves. The positions taken were maintained until March 15 when, as a preliminary to handing over to the Chinese, the Division withdrew north.

On the evening of March 16 a forward Brigade was in action at Kyauktaga. Following the withdrawal, a column of Japanese lorries approached to within 200 yards of the posts of the Burma Rifles. Fire was abruptly opened on the lorries with disastrous results to the Japanese. That night and throughout the next day the Burma Rifles were closely engaged. The withdrawal then continued.

It was the turn of another Brigade to halt the Japanese on March 18. This time, at Gonde, an infantry column was caught at close range by the mortars and automatics of another Burma Rifles Battalion. The ensuing attack was held for several hours until it was time for the Brigade to retire. Burma Division then passed through the Chinese outposts along the Pyu river to concentrate near Toungoo, before proceeding to the Irrawaddy front.

PEACE TERMS*

BY COLONEL H. F. HUMPHREYS, O.B.E., M.C., T.D., K.H.P.

IT IS now generally agreed that Society, in dealing with crimes against itself, should do so without passion, being swayed neither by a desire for revenge nor by a sentimental pity for the criminal, himself perhaps the victim of a bad environment. Its end should be prevention, and the means are these: *punishment* heavy enough to act as a deterrent to the criminal and his possible imitators, *safeguards* or police precautions against a repetition of the offence, and *reform* of the social conditions which encourage the savage and lawless instincts of mankind.

Whereas a century ago society hardly looked further than punishment, to-day this is regarded as the least important of the three. Let us consider the treatment of our enemies, and particularly Germany, the most important, under these same three heads; punishment, safeguards, reform.

In 1919 the people of the Allied nations clamoured for revenge. "Hang the Kaiser," "Make Germany pay the whole cost of the war," "Squeeze her like an orange till the pips squeak": these phrases fell from the lips of politicians and people alike, but none were implemented by action.

We shall make a fatal error if we assume that the war is entirely the making of Hitler and his gang. In 75 years Germany has four times fallen in sudden and unprovoked assault upon her European neighbours. For 200 years, from the time of Frederick the Great onwards, German youth has been taught that might is right, that the German is a superman, that war is desirable for its own sake, and, what is more important, he has come to believe it. Gauleiter Wagner, after the Rhineland coup, summed up German morality in a phrase: "Anything which benefits the German people is right, anything which harms them is wrong."

Undoubtedly Germany will urge that the punishment of Hitler and his gang will square accounts with the Allies, but it will not. Hitler is far more the product than the cause of Germany's diseased and dangerous psychology. To put him on trial may compromise the law: to execute him is to present him with the martyr's crown. A far better course is to banish the leaders of the Nazi party from Germany for life, and to let them, like the English regicides in Switzerland, Napoleon at St. Helena, the Kaiser at Doorn, and Trotsky at Mexico, dine daily for the remainder of their lives on the bitter fruit of frustration, exile and defeat.

What of their subordinates? When crimes can swiftly be brought home to them they should pay the penalty. But in the vast majority of cases they will find no difficulty in proving that they were merely carrying out orders. Nobody wants the farce of long-drawn out trials, doubtful law, technical acquittals or political executions.

*Reference to this article is made in "Matters of Moment."

We know that all the most fanatical Nazis, the most cruel and sadistic servants of the regime, have been drafted into the Gestapo and the S.S. I suggest that all the personnel of these corps, and possibly all members of the Nazi Party, be sent to Russia as a great Labour Corps to rebuild the devastated Russian towns. They should be treated strictly as prisoners of war, and should remain in Russia for five years at least.

This is to mete out the same treatment as that given by them to their French prisoners, and will have desirable secondary results. It will remove from Germany during the first few critical post-war years its most truculent and subversive elements, and will aid the Allies in their important and (as they have found in Italy) their most difficult task of finding a German government which will both command the allegiance of the nation and fulfil the peace treaty.

Reparations, which superficially seem the most suitable way to punish a nation, are in reality the most difficult, and were badly hashed at Versailles, because neither the public nor the politicians paid any attention to economics. Wealth can only take one of two forms, goods and services. Money is not wealth: it is a ticket entitling the owner to a defined amount of services or goods: and if such tickets are printed in excess of the services or goods available their value is correspondingly diminished. This is inflation.

At Versailles, in the teeth of expert advice, the treaty-makers fixed German reparations at a figure far beyond anything she could pay in cash without inflation; they further stated that this figure would be subject to upward revision if Germany became prosperous enough to afford more, and this gave her a strong motive to postpone full reconstruction of her industries. To have accepted goods instead of cash would have produced a slump and unemployment in the corresponding industries of the countries accepting them. To have imported services might also produce unemployment, and does not seem to have been seriously considered.

The result of the muddled thinking at Versailles was the long-drawn out farce of reparations in the 1920's. Germany staged a fraudulent bankruptcy, she printed mark notes till the mark ceased to have value, and apart from the reconstruction of the devastated areas in France, the only reparations she paid were with money borrowed in America for the purpose, and then virtually appropriated as "frozen credits."

We must do better this time, but the scope of reparations is limited. I have just suggested one effective reparation in the form of the services of a large labour corps to rebuild the towns devastated by the war in Allied countries, particularly in Russia: doubtless a selected quantity of goods could also be exacted that would not compete with or produce unemployment in Allied countries.

As regards money payments, too, something can be done. Germany, by various financial devices, has acquired control of the capital of most important industries in the countries she has overrun, and has hidden much of this and much of her own money as

well in the form of credit in America and elsewhere. All these shady transactions must be uncovered, restoration of the stolen property made, and most of Germany's liquid capital impounded by way of reparations.

But we must be careful to avert the danger of ruining Germany. At first sight this might seem a desirable thing to do, but it has two decisive drawbacks. First, Europe cannot be prosperous if the largest, the most central and the most highly industrialised nation therein is the reverse.

Secondly, our aim is to prevent war: Germany must remain disarmed: but our only permanent security is a German nation which has renounced its centuries-old creed that war is good, that war pays: she must learn by experience that peace pays better, and this she will only do if she finds in fact that peace brings prosperity. From 1920 to 1930 Germany seemed to be learning this lesson: it was the great slump of 1929 and the following years, her 5,000,000 unemployed, that made her turn to her old gods and accept the desperate expedient of Hitler.

So much for the punishment that can or should be meted out to Germany. What safeguards, what police measures, should we take? These were thoroughly explored at Versailles and the measures taken were ineffective, less because they were wrongly designed than because when challenges were thrown down by the Axis powers in Manchukuo (1931), Abyssinia (1935) and the Rhineland (1936) the League and the Democracies declined to take them up.

There will naturally be a military occupation of Germany by Allied troops to guarantee the execution of the peace terms. How long should it last? In my view as short a time as possible, though it is inevitable that it should last some years. But the Germans should be given every inducement to believe that fulfilment of the treaty will hasten the departure of Allied troops.

A Germany policed by Allied bayonets will remain sullen and unco-operative: incidents and disorders will occur, and bear bitter fruit in the form of hatred and international bad blood. No strong or responsible German government would emerge in such conditions. Now there will be, there has already been, a demand that Germany should be occupied for 50 years: it is certain that the troops and the peoples that sent them would weary of this demoralising duty long before.

Our main peace aim is to see a contented Germany that has renounced her evil dreams for a spirit of friendly co-operation. She should be treated not as a prisoner under close arrest, but as a ticket-of-leave man on probation. The military safeguards of Versailles should be repeated and made stricter. She should be allowed no Navy, no aeroplanes, no tanks, no heavy guns and an army of only 50,000 men. The Rhineland should be demilitarised.

It will be said that these things did not prevent this war, but this was due solely to the sloth and negligence of the Allies in not accepting Germany's challenge when she rearmed. It is now admitted by everyone, including the Germans, that had the French

sent troops against them when they marched into the Rhineland in 1936 they would, being largely unarmed, have retired without fighting. The French failure to do so, condoned by the British Government, convinced Hitler that the democracies would not fight, and led to all his subsequent piracies.

Looking back we can perhaps understand why the Democracies, fuddled with talk of the Kellogg Pact and the League of Nations, and accustomed to decide major issues by expressions of public opinion, should have come to believe that war could be avoided by mobilising public opinion against it, should have found 11 million signatures to the Peace Pledge Union, should have embraced the policy of appeasement, and from 1936 to 1939 should have hesitated to take any action which might lead to bloodshed and immediate mobilisation for war.

But once is enough: a repetition of such muddled thinking is unlikely: technological advance and the advent of the long range bomber have put into our hands a weapon there will be less reluctance to use than the mobilisation and development of an army.

I suggest that a clause be inserted in the peace treaty stating that if breaches of its clauses by Germany occur, her cities will be systematically bombed one by one till the breach is repaired, a short notice, say 48 hours, having been given to enable the population to leave. Such destruction of material as opposed to men, would not run counter to humanitarian sentiment, only a few thousand professional airmen would be employed on it, and the certainty of this retribution would effectively prevent the emergence of another Hitler.

One other safeguard is, I think, worth embodying in the peace treaty: the control of German radio. Having accepted the terms of the peace treaty, she should undertake not to conduct a radio campaign hostile to the Allies. The importance of radio in the formation of public opinion can hardly be over-estimated, and if our steady aim is the reformation of the German character we cannot afford to neglect this weapon.

There is no question that these safeguards are an impairment of German sovereignty, even though necessary and just. For how long should they be maintained? I suggest till a whole new generation of Germans has grown up, taught to prefer peace to war, to renounce their pagan notions of innate German superiority and the worship of force, to respect their neighbours, and, in a word, to accept the Christian ethic. This cannot take less than 40 years, and long before then the Allied nations will be asked to remove those badges of German inferiority.

The clamour about the injustice of the peace terms that followed Versailles will be repeated. We must not listen. The Versailles treaty was not only just but moderate, and morally Germany is dangerously inferior. When a man has been four times convicted of being drunk when driving a car, when on each occasion he has committed homicide on innocent people, the courts rightly decide that he shall never hold a driving licence again: he is too great a danger to the public.

Similarly, this generation of Germans must never while they live have arms in their hands. Four times in the span of a single life the German nation, drunk with the wine of nationalism (and the German brand is the most intoxicating of all that heady vintage) has committed wars of naked aggression against its neighbours. We shall betray our children, we shall betray Europe, we shall betray civilisation if we show any softness in this matter of keeping Germany disarmed for a generation.

These safeguards do not violate her internal freedom; they inflict on her no economic injury. On the contrary, the relief from the burden of armament will be an economic advantage similar to those enjoyed for many years by the Scandinavian countries. And we must hope that when Germany's long period of probation is over the international anarchy which threatens to destroy our civilisation will have given place to a more orderly system, that co-operation will have replaced competition, and that those moral and Christian principles of conduct which are almost universally acknowledged in private and personal relations will also regulate the business, the political and the international activities of mankind.

What changes should be made in national frontiers? There will be many a wrangle over these. De Gaulle is already demanding, as Foch did in 1919, that French rule should extend to the Rhine: the Poles protest at giving back to Russia those lands which they seized by force in 1920. Let us amid the clamour remember that Europe will owe her restored liberty solely to Russia, Britain and the U.S.A. who have a right jointly to dictate the peace terms. Frenchmen and Poles, like Italians, have fought against the Allied armies as well as by their side.

The peace-makers of Versailles tried hard to redraw the frontiers of Europe on lines corresponding to ethnic and cultural divisions, and in the main succeeded. It was impossible to draw them so that minorities would not remain under alien governments, and half the troubles of the last 20 years have arisen from this cause. While we may deplore the excessive nationalism of the people of Europe and agree that it ought to be diminished, we have to recognise that it has in fact increased and is still increasing. We cannot leave it out of account in any settlement we make: for man's actions politically are swayed more by illogical emotions than by reasoned considerations of self interest.

Let us this time effect a radical cure by forcible transfer of racial minorities to their own homeland. There will, of course, be protests that this will create a lasting heritage of ill-will, but all experience is against this. Scores of millions of Europeans have transferred themselves voluntarily from Europe to the New World, to lands of strange laws and alien tongues, and have settled down there: the only case when a population was moved after the last war—the mutual exchange of Turks and Greeks and the transfer of each to their homeland—has been a triumphant success: and Hitler himself has set a precedent by receiving back Germans from the Italian Trentino, and German Balts from Lithuania and Latvia.

Let, therefore, the Sudeten Germans be sent out of Bohemia to Germany, and the alien Jews who have flocked as refugees to England be returned to their homelands: let the frontier between Hungary and Rumania, and any other where pockets of nationals live among an alien race, be tidied up by similar transfers.

The only case where large numbers are involved is that of East Prussia and the Danzig corridor, which was the *casus belli* of the present war. The only satisfactory solution is the expulsion of all Germans from East Prussia and Danzig, and their replacement by Poles. This will compensate Poland for the surrender back to Russia of the country East of the Curzon line, which she took in 1920—a country where Poles are in a minority: it will give her at last an adequate sea-board on the Baltic: it will complete the "buffer" between Germany and Russia, and it will dispossess the German Junkers, who have always been the high priests of German aggression.

The numbers involved are less than the published German losses in this war, so that there will be plenty of *Lebensraum* for them west of the Vistula: and compared with Hitler's annexation of all Poland and Czecho-Slovakia such a step is moderation itself.

On the other side of Germany in the Rhineland, such a transfer of populations is not possible: the number of Germans involved is far too large, and there is no one to replace them. The decline in the French birth rate led before the war to the immigration into France of millions of Italians and Poles, and the rule by France over a large German population in the Rhineland is not to be thought of: nothing more likely to start another war could be devised. It may be possible to bring the heavy industries of the Rhine under the control of some international cartel which would insure against their conversion to war-like purposes, but in the main we must rely on other measures for our security in the West.

A few alterations of frontiers must be made on strategic grounds, to reward our friends and rob our enemies of the power to hurt. Russia will have a strong claim to her frontiers of 1914, though Stalin seems disposed to be generous to both Poland and Finland. Fiume must be restored to Yugo-Slavia, Albania recover her independence, and the Dodecanese be given to Greece. There is much to be said for the cession of Eritrea to Abyssinia: it will give her a seaboard, and we must hope to see her, under European tutelage, grow into a civilised and independent native African state as Egypt has done.

Libya, which was denuded of its Arab population by the Italians, and emptied of their Italian successors by the war, might, I suggest, be settled by Jews. The Italians had already begun to make this once fertile country blossom again like the rose, and a Jewish settlement here would not only ease the population pressure on Palestine, but would form a useful flank guard to Egypt and the Suez Canal. Metropolitan Italy with Sicily and Sardinia may be left intact.

THINGS PEOPLE SAY

"The British people are champions at forgetting."—*Lord Strabolgi.*

"The informed man is armed against lie and rumour."—*Mr. John Dollard.*

"Personnel—that is jargon for officers and men."—*Mr. Winston Churchill.*

"The largest Japanese island is as big as France."—*Sir Edward Campbell, M.P.*

"The German language has no word for 'fair' or for 'gentleman'."—*Emil Ludwig.*

"Our National Debt has gone up from £8,000,000,000, to £20,000,000,000."—*Mr. A. Tinker, M.P.*

"At a cross-roads in Normandy no fewer than 19,000 vehicles went by in 24 hours."—*Mr. Tom Driberg, M.P.*

"The Belgians are unanimous in hoping for a rather Carthaginian peace for Germany."—*Mr. Tom Driberg, M.P.*

"Great Britain has lost over 3,000 merchant ships from all causes since the war began."—*Official statement in London.*

"To the Germans a nation is either conqueror or conquered, either hammer or anvil."—*The Hon. Harold Nicolson, M.P.*

"There are now 226,416 prisoners of war in the United States."—*Mr. Robert Patterson, U. S. Under-Secretary of State for War.*

"Hundreds of angling clubs in England are allowing wounded servicemen to use their waters without any charge."—*The Daily Telegraph.*

"The prestige of the Prime Minister on the Continent is probably greater than that of any Englishman since Chatham."—*Mr. Ivor Thomas, M.P.*

"America has recruited an average of 10,000 men a day since Pearl Harbour; nearly 10,000,000 men have been mobilised."—*Major General Lewis B. Hershey.*

"A soldier's first request, after being wounded, for a cigarette may, in cases of artery injury, cause irreparable damage."—*Journal of the American Medical Association.*

"After the war air passengers will be able to leave London early on Monday morning and arrive in Karachi on Tuesday morning."—*Lord Knollys, Chairman, B.O.A.C.*

"Allied bombs with RDX, the new explosive which is supplanting TNT, can do about 50 per cent. more damage."—*Colonel I. A. Inke, U. S. Army Ordnance Corps.*

"Mr. Winston Churchill's personality not only embodies the characteristics of the British race, but stands as a living symbol of the cause of the United Nations."—*Mr. Philip Paneth.*

"After the last war we had to resort to martial law in India, but I am confident that after this war there will be no need for such action."—*Sir Firoz Khan Noon, speaking in London.*

"Far more columns in the Press have been devoted to the future of Germany than to the future of the British Empire."—*Major Lewis Hastings, addressing the Royal Empire Society.*

"We should not have heard so much about the poor deluded Germans, or the nice, kind Germans, or the simple, innocent dupes of Hitler and so forth if the enemy had set foot in Kent."—*Mr. William Barkley.*

"On June 15 we joined our brothers in arms and fellow citizens in dipping our colours to the finest infantry the world has produced, the United Nations Infantry of 1944."—*General Dwight D. Eisenhower.*

"A machine is a great moral educator. If a horse or a donkey won't go, men lose their tempers and beat it; but if a machine won't go you have to think and try until you find what is wrong. That is real education."—*Professor Gilbert Murray.*

"For some months one special section of Bomber Command, known as the Bomber Support Group, has devoted the whole of its energies to what its commanding officer describes as 'hoodwinking the Hun'."—*"Times" Aeronautical Correspondent.*

"I have set up a special committee to work out a practical scheme through which soldiers serving abroad will be able to vote direct in a postal ballot for the candidate they wish returned at the next General Election."—*Mr. Herbert Morrison, M.P.*

"When the Prime Minister speaks to the House of Commons he speaks as a soldier—but as a soldier deprived of one of the most modern weapons available to similar soldiers of other united nations in a like position. His speech could not be broadcast."—*Captain Plugge, M.P.*

"The background to the whole resettlement scheme for the British Army is that the officer or soldier should leave the Army with increased understanding of those problems of citizenship of which every member of a vital democracy should have knowledge."—*Sir James Grigg, M.P.*

"We have British, American, Canadian, New Zealand, South African, Polish, French, Greek, Italian, Brazilian and Indian troops fighting in Italy. I even asked the Soviet Minister if he could spare some Russians, but was told that they were too busy."—*Field Marshal Sir H. Alexander.*

"When the Americans landed on Guadalcanar in 1942 their casualties from malaria alone amounted to about 97 men in every hundred during the first few weeks. In February, 1944 that figure had been reduced to two in every thousand."—*Major David Ascoli, broadcasting from London.*

"When the Armistice comes, there will be between 20,000,000 and 30,000,000 men and women who will have to be sent back to their countries, and there will be in addition 300,000,000 people in Europe who will have to be fed, clothed, and restored to their civil occupations."—*Mr. C. Cocks, M.P.*

"The speed with which the mighty British and American Armies were built up in Normandy is almost incredible. In the first 24 hours a quarter of a million men were landed; by the 20th day a million men were ashore. We now have between 2,000,000 and 3,000,000 men ashore here."—*The Prime Minister.*

"Once we are able to bring the full force of the American Navy—as to the size of which I think the figures, when they are revealed, will stagger the world—and of our own naval forces there is some hope that we may fairly quickly isolate the main island of Japan and finish the war."—*Commander King-Hall, M.P.*

"When war broke out in 1939, a shrine with a picture of Hitler was found behind the altar of a German Mission Church in Dar es Salaam, Tanganyika Territory (formerly German East Africa). On it was inscribed: 'Germans, this is your opportunity to disrupt the British Empire'."—*Mr. Geoffrey Hunter, speaking in London.*

"The London Passenger Transport Board, with the help of four smaller transport firms in London, has been making heavy bombers since 1940. It has turned out hundreds of Halifaxes, all of them made in bus repair shops, tube-train depôts and coach-building works. Each Halifax has 40,000 different parts."—*Mr. George Darling; B.B.C.*

"Men and women have faced equal danger on a dozen different battle fronts, and from that shared communion there emerges a brave, new, honest comradeship not only between Wrens and seamen, A.T.S. and troopers, Waafs and aircraftsmen, but between the thousand and one different worlds they represent."—*Godfrey Winn, in "Homes and Gardens."*

"Love of power and its exercise is a very common and very insidious form of selfishness. It nearly always disguises itself as a desire to do good, and so manages to claim moral credit for a profound immoral frame of mind. . . . Hitler showed uncanny skill in his exploitation of this fact during his rise to power."—*The late Archbishop of Canterbury.*

"Germany and Japan have jumped straight from a feudal period to a period of industrial imperialism. Both countries left out that great civilising period of democratic middle-class government, during which ideas of civilisation, ideas which I should be inclined to call Christian, gained considerable power in the conduct of public affairs."—*Mr. Kingsley Martin.*

"Just before the war the Germans struck oil on a considerable scale in the Reich. Then they found impressive oil deposits in both Austria and Hungary. When we re-discover Central Europe after the war we shall find it has become a considerable new oil-producing area. That is a new fact in the economic geography of the world."—*Squadron Leader John Strachey.*

"E.A.M. in Greece is a Left Wing political organisation, its initial letters meaning a National Liberation Front. E.L.A.S. is a military organisation of E.A.M., the corresponding Greek words meaning National Popular Liberation Army. E.D.E.S. is the Right Wing, and stands for a National Democratic Liberation Army."—*Princess Indira of Kapurthala, broadcasting from London.*

"If Russia and America quarrel there can be no possible bar to the re-emergence of Japan in the Far East as a menace to them both. If Russia and Great Britain quarrel there can be no possible step which will prevent the re-emergence of Germany in Europe as a menace to both Poland and the rest of Europe. That is the rock on which we must build our foreign policy."—*Mr. Quintin Hogg, M.P.*

"Two years ago Mine Bay, in New Guinea, was a fishing village inhabited by 20 whites and 150 natives. In June, 1944 it dealt with shipping tonnage only equalled by New York and one other port in the U.S.A. When the centre of gravity shifted to Finchhaven there grew up almost by magic long lines of docks and quays and miles of storage sheds. When each base served its purpose it was scrapped. It reminded one of a former frontier campaign, when an ingenious quartermaster, in order to placate the audit officer, cut a new tent in half and entered it in his ledger as 'Tents, 2 unserviceable'."—*Lieut.-Col. A. Wickham, M.P.*

Belgian Friendship

"In Liege there will always be a strong link of friendship between the citizens and ourselves. That one city sheltered no fewer than 700 Allied airmen during the German occupation—airmen who had baled out on being shot down....

"A friend of mine, an air gunner, who was shot down six months ago in Belgium flew back in the same plane as I did from Brussels. He had moved around all that time, had been passed on from hand to hand in Belgium and France, had always been fed and looked after decently and warmly received.

"The most moving thing of all that he told me occurred once when things were getting a bit 'sticky,' because he had encountered two or three German officers who, fortunately, did not know French much better than he did, and he was therefore able to persuade them that he was actually French or Belgian.

"After that, an elderly Frenchwoman gave him her son's identity card, and he was able to substitute on it his own photograph for that of her son. Her son had been about his age, and had been killed only a few weeks before in an R.A.F. raid."—*Mr. Tom Driberg, M.P., speaking in the House of Commons.*

INVASION BUILD-UP

BY LIEUT.-COLONEL W. H. KINGSBERRY

AFTER service in the Middle East I was ordered in February, 1944 to assume command of a unit being mobilised for service overseas. I found it was a new unit, to form part of the 21st Army Group. We soon realised it was the Army for the Second Front and felt fortunate to be in the right place at the right time.

It took some time to collect and put together the assortment of personnel to form the Permanent Staff; some were good and some were misfits. The misfits had to be removed and replacements obtained. This process meant several repeats in some cases until the right man was found for a particular job; for instance a butcher has been a great difficulty; but the N.C.O. sent for Sanitary duties has proved an excellent Post Corporal, and a policeman an Officers' Mess waiter.

Early in April leave was stopped, and the issue of "Secret" and "Top Secret" instructions became more prolific: instructions about moves, documentation, supply of rations and stores, water-proofing of vehicles and a hundred and one other things that affect the well-being of the soldier—not least being how to get cigarettes before the NAAFI canteens could be opened overseas.

That the Second Front would open somewhere on the Continent was no secret, but to achieve surprise it was vital to conceal the time and place. This involved most detailed instructions as to methods of replacing vehicles, indenting for stores, etc. required in the U. K. prior to embarkation, so that what would normally be a routine matter in a unit did not disclose "something" to someone not taking part in the operation. Arrangements for pay in currency were kept very secret. Serial numbers instead of unit titles were used for many things.

Mid-April things began to take shape. Censorship was introduced, and one night at 2330 hours we entrained. Soon after reaching our destination our postal address became "A.P.O. England", and we learned that we had reached our Concentration Area. There we began to think seriously about preparations for embarkation. Wise men began to look at the moon periods and the tides were discussed.

But April passed to May, and May to June before things really happened. My unit was not part of the assault or follow-up, but about the end of May we got "suspicious" because of other movements known to us. We had become used to aircraft in large numbers overhead, but on the night of 5/6 June the noise was greater than ever. At 0630 hours on June 6 we listened to the B.B.C. news bulletin, but nothing was announced. A few hours later "D-Day" was known to the world.

We then knew the answer to our own problems, as for many weeks I had known that we were to land somewhere on D + 12.

Our final preparations in the Concentration Area were nearing completion and on D+5, orders were received for the Reconnaissance Party to move on D+6. It was given a Starting Point and a route, and that was all I knew about it. On D+6 we received orders for the move of the main body, and the unit transport for D+7.

The Main Body moved to a Marshalling Area, which, in the early stages was secret, but was then revealed. There we stayed till D+10, when orders were received to go to Embarkation Area on D+11. That morning we collected two 24-hour Ration Boxes, and a Tommy Cooker, a bag ration of chocolate and biscuits, an emergency ration, water purification tablets, a "Mae West" life-belt and 3 "Bags, Vomit".

We embussed in T.C.Vs. (Troop Carrying Vehicles), and in lovely summer weather drove through the English countryside looking its best. It was Derby Day, too. The convoy passed quickly through towns and villages and we arrived at the Embarkation Area in the afternoon.

Debussing about a mile from the harbour close to some cottages, an old man leaning over the gate asked me if I had heard the result of the Derby. I said "No" but would like to hear, as I had risked a small sum on Tehran. He had just listened to the broadcast of the race and said that Ocean Swell had beaten Tehran by a neck. As we were about to embark, Ocean Swell seemed to be the obvious tip!

After tea we marched the last mile to the harbour. The men were in good heart and sang "Put that Pistol Down" as their farewell marching song. We embarked on the pre-war Belgium State Railways steamer PRINCESS ASTRID. Every officer and man boarding the ship handed in on the quay half an Embarkation Tag to show that he had embarked. The other half, to be collected on disembarkation, would show that he had completed the sea passage. If the second half didn't turn up, it would probably mean that there had been some bad luck on the way!

With other ships, we moved out of the harbour in the evening, in readiness to form a convoy the next morning. The Captain gave us instructions in case of air attack or abandoning ship, but said that the traffic across the Channel was as thick as Piccadilly without being so dangerous. The Navy, as always, were kind and hospitable, though we were packed as tightly as the proverbial sardins.

Early on D+12 we moved off to rendezvous with ships from another port, and when I came up for breakfast the convoy was well on its way across the Channel. It was dull, but the sea was smooth and there was little prospect of needing the three brown bags issued the previous day. One Cumberland man of nearly 40 years of age told me he had never been on the sea before. He was making a historic journey for his first effort, and managed to survive sea-sickness, although he said he wasn't feeling "too grand".

The Captain had not exaggerated about the traffic. Ships were everywhere, going in both directions; battleships, destroyers,

mine-sweepers, merchantmen of all shapes and sizes. As we neared the beaches we could see more and more ships. In the distance we heard heavy gunfire. A balloon barrage floated over the beach area and the shipping. We watched one balloon break away until it burst high up in the sky.

But there were no Germans in the air, and if any British pessimist still existed, the sight of this Normandy coast would have persuaded him that Hitler had already lost the war. To have thousands of ships lying at anchor off an enemy-occupied coast was more than impudence.

We landed in the ship's own landing craft, and as we neared the shore I wondered how far we should have to wade, fully dressed with packs and equipment. It turned out to be about knee-deep, and the N. O. in charge of the boats asked us to hurry off, because of the ebb. An officer led the way, and in his hurry to get off the craft slipped, and fell flat on his face in the water. Nobody laughed—much!

Hundreds of men were wading steadily ashore; officers' valises were also being taken—each officer being allowed 60 lbs. of kit, including bedding. We were met by officers of the Beach Group Unit and instructed to dump our kits on the beach, march in single file to a sorting out area about 4 miles away from the beach, and leave a baggage party with the kits.

We marched off in single file and got well dusted by passing vehicles. Arriving at the sorting out area, an officer who had gone ahead for orders met us and told us our Assembly Area was about five miles west. There was no sign of our Reconnaissance Party and transport, which had left on D+6 and 7, but I imagined it would be waiting at the Assembly Area.

I was beginning to feel a little jaded, as the roads were hot and dusty, and we had been on the move for nearly 36 hours with no meal since lunch. But the big point was to make the Assembly Area before dark. After that things could sort themselves out. About 9 p.m. we met a Recce Officer of another unit, who told me that my party had not arrived. A blob! This was disappointing, especially as it had the C.O.'s vehicle.

This officer led us to a field and pointed out our ditches for the night. We did not expect to see our kits till the next day, but my Q.M. had persuaded someone to disgorge two lorries and they arrived about 11 p.m., so we all had blankets for the night and a dry ditch. The men had time to make a meal from their 24 hour rations before blackout about 11 p.m. Sharp at 11 the LUFTWAFFE made a short air raid on the beach area.

I ruminated in my bit of ditch about the Recce Party and thought of all the things that a Recce Party can and should do before the Main Body arrived. It was bad luck; and the Officers' Mess whisky, specially allotted for overseas consumption until the NAAFI could open about D+30, was sent in advance with the Recce Officer. A sad thought, in a Normandy ditch. But even if my Recce Party (with whisky) had not arrived, plenty of A.A. units had, judging by the noise they made in the night. If only the bits of their shells would not fall in my particular field!

Rain came at 6-30 (D + 13). Quietly we rolled up our bedding. After a Tommy Cooker breakfast of porridge and tea I had a look round the farms for shelter. The men moved into two barns and the officers into a farmhouse. The farmers and their wives were very friendly and quite ready to take us. One girl appeared to be unfriendly at first, but she thawed when we gave her chocolate and sweets from our rations. It was suggested that she had lost her German boy friend, but if so she soon got over it. Rumours of snipers firing from the woods were current, but I did not encounter any. What we did discover were some of our own troops firing at hares and rabbits with their service rifles; not a permissible form of sport.

On D + 14 the weather improved, and I selected a bivouac site in some adjacent orchards. Next day we prepared to move, and our first lot of stores—including tents—began to arrive from the U. K. Tent pitching underneath the cider apple trees began, and we shared the orchard with cattle. The French girls came to the orchards milking, and the men could buy fresh milk at 2 francs a mug. Except for perishable foodstuffs, local purchase was forbidden, because of the necessity for conserving supplies for the civilian population.

Here in Normandy the people on the farms looked well and appeared to have plenty of food, but the question of the townsfolk at a later date had to be considered. Cider could be obtained, but was tasteless and uninteresting.

On D + 16 we moved into our camp. I inspected the barns we had used to ensure that it was left cleaner than we had taken it over. The farmers were all well satisfied, and were paid billeting rates a few days later. I gave presents of money and chocolate to the children, as part of our thanks, for the use of their homes. Madame had lent me a bed and mattress until my camp bed arrived.

It was a perfect summer day, and we saw much air activity. A formation of our heavy bombers passed through an intense A.A. barrage, and it was extraordinary that only two appeared to be hit. A few parachutes were seen in the air shortly after. Although not many miles from the forward troops, we had little news of the battle. The unit had not then come on the distribution list for two Army News bulletins, and our wireless sets were on our transport.

D + 17 was another good day, and work on camp-sanitation, cooking places, etc., made progress. But the big event was the arrival of the Recce Party about 7 p.m.—six days late! They had arrived off the beaches on D + 11, and had been unable to land because of bad weather. An hour later part of our transport arrived and things were beginning to look up. A three-days' storm had interrupted the whole of the disembarkation of vehicles and stores, but in spite of it our forward troops were still gaining ground.

Newspapers and mails were now arriving regularly, too, except for bad weather interruptions. For example, on June 25 we had

London papers of June 23 in camp. A free supply came through the Army Post Office with our letters.

On D+18 the remainder of our transport and motor cyclists arrived. The weather in the Channel had not been kind to us, but difficulties had been overcome in the end. Our wireless sets were now giving the B.B.C. news bulletins to the men. The 9 p.m. London news had all the cattle as listeners, too! When the news began, the cows were being milked, but they all forsook the milkmaids and collected in a semi-circle round the wireless set. I can't say if this was the reason the farmer removed them to another field shortly afterwards.

The Military Police had a heavy job directing and controlling traffic. But in a traffic block one could always talk to French children, who knew that we had chocolate and sweets in our rations. A rose for a sweet is a good exchange. Many of the children now had Crusader Shields (the badge of the 21 Army Group) sewn on their jackets and frocks.

On D+19, our first Sunday in France, a Free Church padre held a non-denominational service in our orchard, under the apple trees. Although the Luftwaffe had not worried us by day, we did not take foolish risks; there had been many days with low cloud when a Messerschmidt could pounce on the unwary or careless unit. We dug our slit trenches and hid our tents as much as possible.

Although there was no "r" in the month, oysters came from Courseilles; small but good; price, 1 franc (about 1½d.) each. 1s. 6d. a dozen for oysters! But at the moment there was no brown bread, red pepper, stout or vinegar. Yorkshire Relish was the best substitute that could be produced.

Until the NAAFI opened, packs were provided containing cigarettes, soap, writing paper, boot laces and razor blades as a free issue until D+30, or whenever the NAAFI arrived. These were all a great boon, and were issued on a fixed scale per head per day.

As an old soldier of the last war, I have not been used to such organization. But in this war much more thought is being given to the morale and welfare of the individual. At times in the last war one merely existed.

Thus began our part in the campaign. Since then France has been overrun and the invasion of Germany has started. But it all began with those early days of preparation, when every detail was worked out. Thus our Invasion build-up marches on to Victory.

SINKS—AND DOODLE-BUGS*

BY MAJOR-GENERAL SIR DASHWOOD STRETTELL, K.C.I.E., C.B.

MAY I accentuate certain points to which I referred in my article which appeared in the July, 1944 issue of the *Journal*? On re-reading it it occurs to me that the following additional comments may interest members.

As a result of the flying bomb attacks, the accommodation question is even worse than before. We have been trying for over seven months, without success, to get an unfurnished flat. The price of houses has gone up by leaps and bounds; I know of one house which the owners put up to ~~reserve of~~ £2,500. It fetched over £5,000, much to their surprise and delight!

The new regulations regarding auctioning of second-hand furniture not more than 100 years old has prevented owners asking absurd prices for their goods. But there are anomalies in the method of fixing the price of articles which require adjusting. One of them is that if two or more persons bid the maximum price for an article at an auction they draw lots for it.

As to the hints I gave in my last article, I would again stress the necessity of having luggage properly wired—with a spare completed addressed label inside the package. Before leaving India, have all your boots and shoes properly repaired, soled and heeled. Here at Home, if boot repairs can be done at all, it takes from three to five weeks. And remember to bring home kitchen *jharans* and dusters, Lux, and all ~~essential cooking pots, frying-~~ pans, etc.

For those who send home parcels of food (and if the rules in India permit) remember that fats for cooking, dried fruits and sugar are very short, so that such things as butter, raisins, sultanas and sugar are much appreciated. An occasional pound of tea is also welcome, but there is plenty of coffee available.

Since "D" Day travelling has been more uncomfortable than ever. If you get into a train at an intermediate station you will certainly have to stand. One gentleman who lives near us, and who makes the one and a half hour journey to town four times a week, told me that one day last week he travelled *both* ways in the guard's van. Owing principally to the presence of evacuees, buses in the country are filled to capacity—and more! Recently I travelled in a bus in which there were no fewer than 65 passengers—and that in a bus built to carry 34! One could, with difficulty, just breathe.

It is announced that an increase in train services will take place shortly. Yet it seems strange that, despite the large forces, both British and American, now fighting in Europe, the crowding of trains has not been eased. Yet it is so.

* Being further notes on life in the Old Country.

The coal situation is gloomy. The Ministry of Fuel declares that stocks are lower than ever, and urges people to build up their private stocks to the limit permitted during the summer months. But the coal merchants are unable to obtain supplies more than to keep one going. However, just as one reaches the last scuttle, so far, we have received a scanty allowance in time.

Judging by letters I have received, my last article seems to have painted a depressing picture. But I have tried to present things as they are. And though with a cheery heart and a "setting-to" all is well, it is only fair to say that at present, and possibly for some time to come, conditions at Home are entirely different to what they were before the war.

Those accustomed to plenty of servants and other amenities of the East will find life pretty hard, and must be prepared "to do" for themselves to an extent they can never have previously envisaged. To the older ones the difficulties come harder than to the younger. The housewife lives in the kitchen, and life is one long preparation of food, which is devoured in a few minutes, and which is followed by interminable washing up. The centre of her life is "the sink."

This statement can be confirmed by the remarks of a friend of ours who went away for a fortnight. On her return she was asked if she enjoyed her holiday. "Oh! yes," she replied. "I had a lovely change of sink."

Since my last article we have been afflicted by the new German weapon so tritely called the "doodle-bug." You will have read the Sandys report on how this was tackled from its inception until the capture of the launching sites.

It was a wonderful example of combined effort, and it is true that the main battle has been won. Nevertheless, the report was a bit optimistic as to the results of the victory. True, it was stated that a few would probably still come over. Well, they have—to an acknowledged and unpleasant total—and judging from those that fly nightly and explode in our vicinity (which, incidentally, has only been once mentioned in the reports) we wonder if the official eye is Nelsonian!

Much criticism occurred about the optimism of the report, principally because, though they were warned against returning, many evacuees from London and Southern England decided to return home. They left the "safe" areas for their homes, and some went to their death. It was unfortunate, as on the whole the handling of this very critical problem by the Government has been good. It is a strange coincidence that often when official "gaffes" occur, the P. M. is out of the country.

Here are a few personal experiences of these flying bombs. We were near London the night the first ones came over, and it was quite obvious to the intelligent that they were not the normal type of bomb. I went up to my Club to make inquiries, and just as I arrived the "tape" informed us that they were self-propelled. It gave other information, too—but that was incorrect. At any rate, it gave us all an opportunity of airing our views.

Next day I went to my old School Speech Day, and while I was there decided, for no particular reason at all, to return by a train an hour earlier than I had intended. It was as well I did, as on arriving at Waterloo I found the tube to Piccadilly Circus closed on account of "alerts," and I was sent all round London by Tube and the District Railway, reaching my destination after two hours, instead of the normal 45 minutes.

The following night we spent in a southern suburb, and by then the attack was in full swing. They started coming over about 8 o'clock in two's and three's every ten minutes or so, and I calculated that in the next twelve hours some 150 came over. The house shook violently at every explosion, and sleep was out of the question. We must have been in one of the bomb "alleyways," as every bug travelled over the vicinity of the house. I was not sorry to leave the next day and return home, where, though not immune, the visitors are not quite so frequent.

It is a cad's weapon. It cannot help being quite indiscriminate in its effect, as it can only be roughly aimed on a certain line and at a large area like London. There is no possibility of "pin-pointing" it—but it is a weapon one might expect from that "gentleman" the Fuehrer. It had little military effect on the invasion. It did not stop the movement of a single lorry, ship or man towards the front. But it did divert a considerable portion of our Air Force from more aggressive duties.

It caused a large number of casualties which might have been expected to have lowered morale, but in fact it only made people angry. I hope and believe that as a result of this attack the Englishman and Englishwoman at last has learned to hate—a good thing, with appeasement already raising its head.

On the other hand, the manufacture of these flying bombs must have diverted much of the German output of weapons from others which might have had a much greater effect on the war in its present stage. Very fortunately, the weapon was not ready for use earlier, owing to the fact that our Intelligence found out about it, and that we were able to initiate intensive air attacks on its bases. Had the attacks been in full swing from the estimated 600 to 700 launching sites all last winter, it would have been a much more difficult problem to deal with.

Certainly, it is a nasty customer to see and hear. By night, its red glow as it tears along is like a fully lighted train moving at great speed, fascinating, menacing. Its roar, like that of a train rushing through a tunnel, is such that it will always be recognised.

Since writing the above, the V₂ rocket bombs have arrived. From the psychological point of view they are not so terrifying as the V₁—but if either score a direct hit and you are there—well, your number is up anyhow! The blast effect of the V₁ is greater than that of the rocket bomb, which, coming from such a great height, has considerable penetration and much more concentrated effect than the V₁. The great thing to remember is that neither of these weapons will win the war.

THE BURMA RIFLES

BY BRIGADIER BERNARD FERGUSON

I WANT to sing the praises of the Burma Rifles. The operations of Special Force, and the Wingate Expedition of 1943, owe them an incalculable debt; yet in all the welter of publicity that these operations have had, the Burma Rifles have blushed unseen. Everybody in Special Force, and not only the old guard of the original Expedition, will endorse what I have to say.

In the recriminations which filled the air after the withdrawal from Burma in 1942, hard things were said about this Regiment. About that I know nothing, and care less. What I do know is that Wingate, in a report which was never published because of its outspoken criticisms, proclaimed that he had never had finer troops under his command. Praise from Wingate was rare, and he was the last man to bestow it amiss. I know also that in 1942 they marched no less than 1,400 miles in the withdrawal, without any M.T. whatever. By now the operational marching mileage of the average rifleman for the past three years must be close on four thousand.

I had barely heard of the Burma Rifles, when, in October of 1942, I took over command of one of Wingate's columns. A platoon of fifty Riflemen, with two British officers, formed my Reconnaissance element. They were my eyes, my ears and my mouth, and quickly become part of my heart and soul. In the months of training, I learned as much from them as I learned from Wingate. Their watermanship and their jungle-craft were as remarkable as their zeal. In the water they were like eels, in the jungle like snakes.

Those weeks of training were extraordinarily happy. The British soldiers and the Burma Riflemen became fast friends. I had my camp by a cool river, where twice a day we bathed and once a day we urged our mules to swim. I always remember Pa Haw, a Karen elephant-driver from Tenasserim, swimming mules across apparently by means of whispered directions in the animal's ear. Nelson was the platoon commander's groom, although he had never seen a horse before; the platoon commander shared with me a cordial dislike for horses, but Nelson made up for this shortcoming by teaching himself to ride, and finally coming second in a race held for the grooms.

They were mighty hunters. John Fraser and Pam Heald, their two officers, rarely ate bully beef or ration meat. To the British, the jungles were barren of game; to the Burifs, they teemed. The more conventional forms of meat, *sambhir*, *cheetal* and so on—often graced their table (the Burifs make an excellent table in half an hour); and if they wished they could have monkey or python as well. I tried both, out of curiosity; and found them as ordinary as frogs or snails.

And their singing was a delight. I recall coming back to camp one evening, walking through the jungle with a torch half an hour after sundown, and reaching the bank of the river which lay between me and the bivouac. I sat for twenty minutes listening to their voices coming over the water. They were singing, not the nasal chants of the East, but an odd medley of Western music: hymns of Moody and Sankey, theme-songs from films, English folk-tunes.

These were Karens. Several other columns had Karen platoons also; two had Kachins, and one Chins. Their characteristics vary: the Karens excel in watermanship, the Kachins in the dexterous handling of bamboo. But in essentials there is little to choose between them, and I rejoice equally in the command of all.

I became so fond of them that their colonel thought it well to offer a word of warning. "Don't ask too much of them," he said. "They had a hard time coming out of Burma; they have lost their homes and are worried about their families. I am pretty sure they will be all right; but we are only going in on a raid, and they may not be over-keen on coming out again."

That C.O., Lt.-Col. L. G. Wheeler, will be long remembered with affection and admiration; he would have played a great part in the operations of 1944 had he survived the first expedition. He was killed by a stray Japanese bullet in a remote village on the fringe of the Kodaung Hill Tracts on the 4th of April, 1943.

Wheeler was the only Regular officer in the battalion which furnished our reconnaissance platoons. The others were all young and fit men from the big civilian firms of Burma, such as Steel Bros., the Bombay-Burmah Trading Corporation, the Burmah Oil Company and the Irrawaddy Flotilla. They were hand-picked, and a finer body of officers never took the field. They had the full confidence of their men, and without them we should have been a troop of blundering boobies. I made my Burif platoon commander second-in-command of my column; and he bosses me still.

The function of the Reconnaissance platoons was manifold. They procured us guides and acted as interpreters. They disseminated propaganda in the districts through which we passed, sitting and gossiping in front of the *hpqongy kyaung* or drinking tea with the headman. They supplemented our scanty ration by local purchase. Most important of all, they collected intelligence about the enemy, and generally nursed the columns along. I got the best value out of mine when they were thirty or forty miles ahead, sending back their nuggets of information on the wireless, or bringing it to me in person.

From the wealth of incidents in my memory, I find it hard to select those which will best exhibit their prowess, resourcefulness and courage. On the 6th of March, 1943, I had a small fight near a village, in the course of which an officer and four men were too hard hit to carry on. The action had been fought with only two platoons, away from the main body of the column, and I had no Burifs with me. It was three o'clock in the afternoon when I left the unfortunate men, with chatties of water and some

bananas beside them; and not until seven or eight that I made contact with my main body at an agreed rendezvous. Lance Naik Ba U with two men changed into plain clothes and journeyed to the scene of the fight, which was on a motorable road, down which the sole surviving Jap had escaped in a lorry.

There was a small Jap garrison only five, and a large one only twelve miles away, from which a punitive party had almost certainly started after us. Ba U and his men went back to the village and arranged with a friendly old man to seek out and succour our wounded. The riflemen risked far more than merely meeting the enemy; they ran the chance of being denounced by villagers, over whom, in that area, the Japs had established the dominion of fear. Ba U was later taken prisoner, but escaped and joined a column of Special Force a year later.

Once a Havildar and a rifleman in plain clothes were caught by the Japs in a village where I had sent them to reconnoitre. Other riflemen immediately volunteered to trace them, and two entered the same village in the same dress. This was in a Burmese area, where their tongues and their faces alike betrayed them as strangers. They brought back the sad news that the others had already been removed to Maymyo by their captors.

These last two, on their way back to my camp, found a party of fifty Japanese looking for us along the river whence we were drawing water. They followed them up as they cautiously approached a bivouac I had left that morning. While the Japs were examining the exits of the bivouac to determine which way the column had gone, these two Karens threw their six grenades among them, and then beat it. How many of us would stir up trouble when the odds were similar?

On the 28th of March, 1943, we were fighting by moonlight in a village at five o'clock in the morning. An officer got a bullet in the shoulder and a grenade fragment in the small of the back. He was carried for some distance on a pony, but his condition was causing such delay to the party leading it (it had become separated from the main body) that he eventually persuaded those with him to abandon him to his fate. One little Karen rifleman, himself unwounded, volunteered to remain with him. Nine months later we heard from an escaped prisoner that the Japs eventually traced the two of them to their hide-out in the jungle, took the officer prisoner and shot the devoted Karen.

All these are tales of 1943, and of my column only. Other columns can all tell similar stories. The strain of once again leaving their country bore hardest on the Kachins, some of whom passed within a few miles of their native villages. There was nothing except their loyalty to stop them slipping off their uniform, putting on the dress of the country which they carried in their packs, and reverting to their old civilian life. One man, within two miles of his own village, heard that his wife and daughter had died. He summoned his sons to meet him farther along the route his party was following, saw the two boys for a few minutes, bade them farewell, and carried on out to India. And in 1944 these men went in and came out again, for the third time in as many years.

In 1943, we came out of Burma in small parties. Some went to China, some to Fort Hertz, some recrossed the Chindwin. There was a long period in hospital for most of us, followed by generous leave. When that was over, the British battalion which had manned three of the columns, and the Burma Rifles, met once again in the same garrison town in Central India. The Burma Rifles had already been there some days when the British arrived.

From every tent streamed Riflemen, and on every face was a huge grin. As soon as the British were dismissed from parade, the path from the lines to the canteen, the road from the camp to the town, were crowded with mixed groups of British and Karens, streaming to the pubs and the pictures arm in arm, laughing and talking at the tops of their voices, regardless of whether they were understood or not. It was a sight which no one who saw it will ever forget.

In the campaign of 1944 once again the Burma Rifles are playing their part. In my own Brigade I have a Karen captain, who had won a well-earned Military Cross in 1943, commanding a Reconnaissance Platoon of mixed British and Karens. He succeeded in marching his whole platoon into and out of the White City Block at Henu during the period of its investment by the Japs. The standard of patrolling has been again exceedingly high. One patrol, led by a British officer who was on the original expedition, found a body of 200 Japs fast asleep in the jungle without a sentry. They stormed through it, although outnumbered by more than ten to one, blitzing hell out of them.

What I have said is only a passing salute. Some day, I hope, a full account of the adventures of the 2nd Battalion of the Burma Rifles in the present war will come to be written. (It served in the last war also, in the Middle East.) This task will not be easy, for their work has been done in small parties, scattered over many units. For us who have known them, who have marched and lived and fought and slept beside them, no such record is necessary; nor to remind us of their achievement do we need to look at the long and growing list of decorations that they have won, which now hangs in their Depot.

Let us hope that the liberation of Burma, for which they have striven so hard, will not be long delayed, that they will have the reward of their labours, and the joy of reunion with their families. The spirit and steadfastness that they have shewn in these hard years are the best possible augury for their country's future.

C. I. D. IN KHAKI

BY LIEUT.-COLONEL JOHN G. ELLIS, M.B.E.

ARMIES, like every other organisation in the history of the world, have their black sheep, and it is only fair both to the millions of honest soldiers, and to their country, that those black sheep should be caught and punished. The reader of this article must, therefore, remember that the facts revealed here for the first time are not in any way intended as a reflection on the British Army, for in Total War armies comprise honest and dishonest citizens alike—the latter fortunately a small, but active, minority. Neither, must I add, is this dishonesty among the few, peculiar to the British Army.

To curb the activities of this minority the Special Investigation Branch of the Corps of Military Police came into being as the result of a tour of the B.E.F. by a Senior Detective Officer from New Scotland Yard, who was charged with reporting on crime in all its phases as it applied to the Army. But before describing the conditions then prevailing, let us think of the effect the declaration of war had upon the average civilian.

The upheaval consequent upon conscription in September, 1939, when the "butchers, bakers and candlestick-makers" were called to the colours can well be imagined. Black-coat workers rubbed shoulders with dock labourers; intellectuals found themselves next to fitters or farm labourers; whilst honest hard-working youngsters found themselves associating (unknowingly) with a professional thief. A current criminal record does not debar a man from military service.

The Corps of Military Police, numbering 400 men, 200 of whom were stationed in Malta, Gibraltar, Cairo, Jerusalem, Hong Kong and Shanghai, had its expansion problems. It increased from 200 to 1,200 by Christmas, 1939, and was so fully engaged learning the new technique of modern warfare that it could not be expected to cope with the crime angle. No thought was given to the criminal dressed in khaki, who, taking advantage of conditions in France, settled down to his nefarious criminal schemes.

Let me emphasise once more that I do not wish the reader to get the impression that the Army was composed of criminals—far from it. Having served in the Army since the early days, I am proud to belong to it, and shall always look back on the comradeship, loyal friendships and happy and sad times with something akin to affection. But there is no denying that occasionally environment brought about a lack of normal responsibility to the State which, early in the war, found its outlet by a wave of crime in the B.E.F.

To the professional thief the chaotic conditions in British and French ports provided heaven-sent opportunities. He had established his French civilian "contacts" and "receivers," whom

the French *Gendarmerie*, already overburdened by the increased pressure on their own affairs, were hard pressed to control. Here are a few illustrations of the crime situation as it then existed.

In Rennes, with a civilian population of 125,000, there were approximately 6,000 troops. Yet the crimes recorded from October 11 to 28, 1939, were: one case of "smash-and-grab" on a jeweller's shop (jewellery and watches valued at 80,000 francs stolen); four cases of driving away civilian cars (one the official French police car); one attempted breaking into a woman's house; two cases of robbery with violence; six cases of simple stealing; and 15 other cases of assaults, damage to property, "bilking" cafes, etc.

In Nantes, where there were 13,000 soldiers (mostly labour companies), these crimes were recorded in the sixteen days between November 30 and December 16, 1939: one suspicious death of a soldier, three cases of breaking and entering, 20 cases of stealing, five cases of car stealing, eight cases of assault and 72 arrests by the C.M.P. for ordinary offences against military discipline.

The first eight shipments of N.A.A.F.I. stores were pilfered on an enormous scale, and at one time it was estimated that 800,000 francs worth of the British soldiers' property had been stolen. These cases were handed to me for investigation by the present Provost Marshal in India (who was then Senior Military Police official of the Area), on his leaving to take up another appointment. With a little luck and much hard work under adverse conditions, we were able to break up the N.A.A.F.I. gang, resulting in the arrest of six of the ringleaders, who were all sentenced to substantial terms of imprisonment. The total defalcations of this gang ran into 1,628,000 francs. At another port, out of a shipment of 50,000 razor blades, only 26,600 were landed.

Frenchmen were perplexed. They could not be blamed for not being able to differentiate between the fighting soldier, whom they never saw (he being in position well forward) and the particular type of non-combatant soldier who was setting such a bad example.

The French civilian criminal element were not slow to take advantage of the conditions presenting themselves. "Receiving" was rife, particularly with cigarettes and other small articles being transported duty-free for troops in the B.E.F. The *Gendarmerie*, harassed by having to make billeting arrangements for British soldiers, and French and Belgian evacuees, turned to the Commanding Officer for assistance in tracing these thefts, etc.

There was, however, no one trained to deal with crime in the Army with whom the French police could collaborate; and the latter were discouraged to such an extent that they took little action to bring the French civilian thieves and "receivers" to book, when, on the face of things, the British authorities were taking little or no action to check the miscreants.

Newly-commissioned Army officers had so little knowledge of military law that, even when the culprit was caught, the case was so hopelessly prepared that the J.A.G. had no alternative but to throw it out.

Such were the conditions as they existed in the first three months of the war. It was clear that they would go from bad to worse unless prompt steps were taken to combat them. An urgent call was made by War Office upon the Home Office for trained detectives. The result was a tour of the bases by a senior C.I.D. officer as mentioned above, who reported the conditions I have briefly outlined.

An immediate request was made for C.I.D. officers for the Army. But we, in the London C.I.D., had our own new troubles. Round-up of aliens had begun; our own Force had been expanded to include the War Reserve Police, who had to be trained; black-out had brought with it a new type of crime. In short, we could ill afford to send a contingent of C.I.D. officers to France.

However, eighteen officers were released from the Yard to form the nucleus of a crime-fighting organisation. They served under Superintendent C.I.D., Campion, who was later killed in France. Five officers and myself, commissioned as Second-Lieutenants, six Warrant Officers and six Sergeants formed the first team; we arrived in France in early February, 1940, following a short period of training in England. On arrival we split into teams of an officer, a W.O. and a Sergeant, and moved off to our various bases.

Military expressions, ranks, grades, codes, etc., gave me many a headache. But although I had not previously studied military law, I found it easy to assimilate, based as it is on British civil law, and soon I was inundated with crime inquiries of all kinds. With one W.O. (my Sergeant had been posted) I could never hope to deal with the situation with which I was faced. Consequently I looked round for suitable personnel to help, and fortunately found in the existing C.M.P. companies civil C.I.D. and plain clothes police officers, former soldiers who had been recalled to the colours on the outbreak of war. They were transferred to our Branch, which was then called the Special Investigation Branch of the Corps of Military Police, and it was thus that the Army C.I.D. came into existence.

My team of seven C.I.D. officers then proceeded to carry on with our normal peace-time occupation, and we were engaged on investigating the murder of a British Sergeant by a French soldier when we were ordered to leave and get back to England as quickly as possible. We scrambled out *via* St. Nazaire with no casualties, my seven having grown to ninety-seven by the attachment of other military policemen on the road home. Eventually we arrived at the C.M.P. depot at Mytchett in the weirdest assortment of dress, but whistling a tune as we trudged up the hill.

On re-forming at Crookham, we found that each "team" was to be allocated to a command in England, Scotland and Northern Ireland, to carry on the work we had begun in France. Commands in England had already been filled, and I was posted as O.C., S.I.B., Northern Ireland. Thinking my Section would wish to serve in Home Commands (they were all from police forces in the South) I started to say goodbye. But the seven to a man said:

"What are we waiting for?" packed their equipment and, together as the original team, travelled to Northern Ireland, where we set up office again.

The 180 miles of Irish border between the Free State and the North presented us with a neat problem. Smuggling of military stores was rife, since such huge prices were realised in the South. With my seven investigators fully engaged in normal crime inquiries, the situation seemed hopeless. But it was tackled, first by making a "no-man's-land" five miles in depth on the northern side, signing all roads "out of bounds" to military personnel and traffic; secondly, by publishing an order making it a Court-Martial offence for any officer or soldier to be found within the "no-man's-land," whether he was found smuggling or not; and, thirdly, by training picked men from the C.M.P. to patrol the border twenty-four hours a day.

The "bag" of persons caught, and the ingenious methods used by the would-be smugglers would fill a book—but we reduced the traffic in military stores by persons subject to military law, to a minimum.

Another system of fraud which engaged our attention in Northern Ireland was the supply of quarry stone for the building of aerodromes, then so desperately needed. The Ministry was demanding increased output, calling for more granite, chippings and tar macadam, etc. But as in any sphere of activity, when demand exceeds the supply, fraud is inevitable. Here is a case which will illustrate my point.

In August, 1940, when a large number of airfields were under construction, one of our investigators "picked up" a soldier, employed as a checker on an airfield, with £185 in dirty pound notes concealed in a false-bottomed kitbag. Upon interrogation he elected to say that he received the money from contractors, and then became as "mum as an oyster." After a protracted inquiry we secured sufficient evidence to bring charges of conspiracy against three civilians and seven soldiers, all of whom were heavily punished. As the result of our labours, we recovered £35,000 in actual cash. The saving to the Government can be imagined when it is said that this firm was one of ten supplying one airfield, of which at that time there were nine under construction.

At this time with the influx into Northern Ireland for training of British and American troops, Army contracts for straw, swill, nightsoil, etc., were being tendered and accepted with little or no check on the *bona fides* of the persons tendering. A little whisper invited our attention, and after four months undercover inquiry, ranging over six counties and Scottish Command, we were able not only to recover a large sum of money, but, more important still, to prevent a contractor, who had been perpetrating similar frauds on the Army since 1928, from participating in Government work for all time. His three years' penal servitude was well deserved.

At this stage in the career of the Branch, it was found that no more C.I.D. officers were available, they having been absorbed

into Sections called upon to supply drafts for the M.E.F. and other theatres. An establishment for training young "uniform" policemen was urgently required, and thus in April, 1942, the first course of the S.I.B. School, of which I was the original chief instructor, was begun in the C.M.P. Dépôt.

The syllabus, based on the normal civil police detective constable's to sergeant's examination, was necessarily stiff, but we turned out many first-class recruits for this highly-trained work. The courses are still in progress, and recruits turned out have increased the original Branch from 18 to several hundreds.

Each fresh invasion of German-occupied territory sees its Special Investigation Section in the second or third wave. Africa, Sicily, Italy, France—in each S.I.B. Sections were included in the early operations, protecting W.D. property, arresting the civilian receivers, and generally investigating that type of crime associated with active operations. In fact, one of the First Army Sections were so far forward in the Medjez-el-Bab show that they took several prisoners in the rush for Tunis and Bizerta.

The size of a Section is small—an average of 20 officers and men, varying in different theatres according to the addition of interpreters, civil police acting as liaison officers, "native trackers," etc. Allocation of transport is fairly high, since the only "weapons of war" needed (apart from a .38 pistol per man) are a vehicle, typewriter, some paper—and a sound knowledge of the law. Every vehicle is, in fact, a miniature police station, and in active theatres was ready at a moment's notice to rush off into the desert or along the coast to the next town to open up a detachment of the Branch wherever an outbreak of crime was anticipated.

Normally, the work is divided into two main categories, *i.e.*, investigation of non-productive offences against the State and decency, such as murder, manslaughter, rape, arson, etc., and the recovery of W.D. property, stolen or unlawfully disposed of or obtained. Except for offences which cannot be committed by military personnel, such as "long firm frauds," "bucket shops," etc., the Branch has investigated every known type of crime, including those with which the British civil Police Officer is not normally familiar, such as gun-running, opium-smuggling, etc.

India, owing to commitments in other theatres, is the last country to receive its Special Investigation Branch, and here it is fairly new. It is, however, getting into its stride following the assistance and active co-operation of all Heads of Services.

Whilst, for security reasons, locations and strengths cannot be given, it is no breach of security to say that the Branch in India has already effected over 2,330 arrests for crime, and has recovered stolen or unlawfully disposed of W.D. property to the tune of over Rs. 7,000,000, or more than £500,000.

Thus we can look back on over four-and-a-half years of ever-changing types of crime inquiries, far removed from our civil occupation yet so closely following the lines of our normal everyday employment as to be "detectives in khaki."

MY LAST DAY AS A "FREE-ENGLISHMAN" IN ITALY

By E. X. Pow

At the time when the Armistice between the Allies and Italy was signed on September 8, 1943, the author of this article was in Camp 49 at Fontanellato, between Parma and Piacenza. All the occupants of the camp made good their escape. For over seven months the author lived in German-occupied Italy, finally crossing over into the British lines on March 24/25, 1944. During this time he kept a diary, and the following is his last entry.

ONCE AGAIN we got up very early, before it was light, and settled down in our minute little grass hut. We were not looking forward to spending an indefinite period in this fashion, for apart from the discomfort of the grass hut owing to its diminutive size—it measured only 5½ feet by 4 feet and there were three of us—the neighbourhood was not a very healthy one for us ex P.O.W's. The food situation was causing us a little anxiety; we had eaten most of the rations given us by our Castelvocchio hosts, and were by no means certain that it would be possible to replace them.

Thus we were sitting on Friday, March 24. It was a dull, raw morning, but this was welcome, as days which started bright and gay usually petered out in wind and rain. The reverse process held true, too, so the unpromising weather augured well for the evening. Our host had particularly asked us not to leave the hut and wander round; he did not wish neighbours to know of our presence. So we prepared for another day of just lying about, and although by now thoroughly accustomed to such an existence, yet days spent in this futile way were beginning to become increasingly irksome.

By midday the weather had improved; a slight wind was blowing, but it was steady and not gusty, so we had great hopes that Buster would come up to scratch tonight. (Buster had been appointed our leader, and we had agreed to entrust ourselves entirely to him and obey him in all respects). At 3-30 our host suddenly appeared, and said Buster wished to start as soon as possible. Hot soup would be brought to us within ten minutes, after which we would leave. As our soup was being drunk, Buster arrived.

How wonderful to feel that, providing all went well, our days in Italy were numbered! Do not imagine we were ungrateful for the many kindnesses shown us by Italian peasants, nor unappreciative of the beautiful country through

which we had passed—parts of Italy never traversed by English visitors. But we had walked about 600 miles, spending our time hiding in caves, shepherds' huts, etc., and it was not easy fully to appreciate the beauties of a countryside as a fugitive. We must all have been fervently thankful that we really were on the final lap of the long journey to our lines, and that at last the trying period of waiting was over.

For this, our last march, we were all travelling light. Some carried nothing at all. Of us three, Carol had a haversack and Johnny an old sack in which were three small loaves, one omelette and a little bacon. I had a haversack and had slung a blanket across my shoulder. Buster said the blanket would rouse suspicion if we met a Jerry, but I countered by saying that a party of twenty-two would make even the most stupid of Germans suspicious, and that it might easily come in useful as a stretcher should anyone hurt himself on the mountain side. I refrained from adding that it would also help to keep me warm, for in our community selfishness did not go with a swing, and any suspicion of it was invariably frowned upon.

But I feel the cold acutely, and know my limitations. That huge snow-covered mountain mass, ten miles away, over which we had to cross, might well hold all sorts of surprises for us, and experience had taught me that mountains must be treated with respect. When deep snow conditions exist, they must be journeyed over with extreme caution. Sad to think that not a few *ex* P.O.W.s have tackled light-heartedly a mountain route and perished on the way.

All of us were clothed much the same way; none had a greatcoat, nor any gloves. Mine was about average, so I will describe it. I had a pink Homburg hat; a woollen scarf, cotton vest, khaki flannel shirt dyed green; cotton waistcoat; black coat made of *ersatz* cloth, and which was nearly as thin as alpaca; long woollen drawers (a recent gift); battle-dress trousers dyed black; a well-darned pair of khaki socks; British boots; and wrapped up in my blanket was an old battle-dress blouse.

My haversack contained diaries, spare pair of socks, a leather flying helmet, one fork, one bandage, a little home-made toffee, some bread and some bacon. Our boots had always been a source of worry and, towards the end, we had only carried out worth-while walks in order to conserve them. Mine were about 18 months old and had never been repaired; although leaking badly for six months, they were still far from being "u/s" when handed in.

Shortly after four o'clock we set off. It was a thrilling moment, and one we had been waiting for many weary

months. We numbered 22, three being Americans, two Russians, two Yugo-slavs, and the remainder British.

Within a quarter of a mile a railway line frequently patrolled by Germans had to be crossed. Some months previously this would have been regarded as a serious obstacle, to be crossed during darkness. Now, though by no means *blase*, we were confident that we could fend for ourselves in emergency; and we had learnt to walk past Germans unconcernedly, knowing full well that the slightest suspicion of panic might well lead to capture; we knew when to adopt evading action and when to adopt evading action and when to bluff it out.

Buster started off at a great pace, but within twenty minutes told us to wait in a couple of small grass huts. There we remained for half an hour. Moving off, the fast pace—a good $4\frac{1}{2}$ m.p.h.—continued. We skirted round within a mile of Sulmona. It had been well bombed that morning, and all spare Jerries were on fatigue clearing up the damage—or so it was said.

Passing a small and rather isolated farmstead we saw a German soldier outside. He was unarmed and, apart from staring at us, made no attempt to interfere with us. Further on were two German military police armed with Tommy guns, and about thirty yards distant from the point where the main road was crossed. Later, an Italian who had been standing with the two soldiers caught us up; and said that although they were suspicious and curious as to our large number, yet it fortunately did not occur to them to stop us.

Occasionally we passed empty farmhouses. They looked lonely and forlorn, and I wondered where the wretched families had been made to go. One very large farm had a chapel attached; in the courtyard was a lovely old fig tree, bright with fresh green leaves. As we passed, so a big marmalade cat was sauntering round.

Just before dark one last road had to be crossed before getting on to the mountain. We waited for a solitary German tank to rattle past. Then over the road and up a path for a hundred yards; then steeply down to the bed of a stream. Again we found snow. What a lot we had had to do with it during the past months! We had bathed in it eaten it, drunk it; walked on it; fallen in it (so that at times we were buried); and shovelled it. We had learnt to loathe and detest it, and during the next few hours we were destined to have our last round with it.

We halted a few hundred yards up the path in a small village at the foot of the mountain, so that we could all close

up and organise ourselves. It was now just after 8-30 p.m. From the centre of the village the path turned right, climbed gently for half a mile, and then crossed a bridgeless stream; it was just too wide to leap, so most of us put in one foot only with the object of keeping the other one dry. After crossing the stream the path became steeper. We began to meet small drifts of snow, and twenty minutes later we were well into it.

At first the snow was mushy, but it became firmer. Just occasionally a leg would sink through, and then it seemed that leg was in a vice, held tight from foot to knee. But the snow became harder and harder.

Buster was pushing on at a good pace, and we were beginning to spread out badly. The route led round the face of a steep hill; I looked down, and for a hundred yards or so it fell away almost sheer, and ended in a deep rocky gorge. I did not look a second time, for one careless slip would be the first and last. At each step I plunged my heel hard into the snow, then drove in my stick; in this fashion I crossed that unpleasant stretch.

Throughout the night it was bright starlight; and although there was no moon (there was a new moon on March 24), yet with all the ground white with snow, it was easy to see great distances. At 11 p.m. we halted. Word came from the rear that one of the Americans had collapsed; he had been brought round, and one of his compatriots had unselfishly turned back with him. Even at this stage it was pleasant to sit down, but it was a chilly process, for the seat of my trousers had worn through and there were two little holes, one on the right and the other on the left, through which melted snow soon found a way!

Starting off again we went down a small hill and over a mountain stream, which I crossed by leaping from stone to stone and keeping my feet dry. The others were not so fortunate, for there were splashes and muttered oaths all around me. The water must have been damnably cold.

Then we started climbing, climbing. The snow was firm, but eventually we began to go diagonally across the side of the mountain. Then the trouble began. Stretches of sound snow there were, but much of it was in bad condition, so that every fourth step, in one went. It was not really deep—only up to the knees—but quite deep enough to check one's progress badly.

But walking in this way told on our strength. Our rate of advance was painfully slow. At 1 a.m. we halted. I was not too warm and began to feel tired. It was time to

reorganise myself. Off came the blanket and I put my battle-dress blouse over my thin mufti coat; then off with the haversack and out came the fling helmet, which I put on. The spare pair of socks I put on my hands as gloves. I should have eaten as well, but felt I would rather rest instead. So I sat on my blanket and kept my bottom dry, and felt pleasantly warm with the extra garments.

Then on once more, still diagonally. We were soon spread out, but what matter? Carol was going splendidly, but he didn't like the steep bits with the nasty drops, and I don't blame him. At one place poor Jack slipped; off he went, careering down the hill as though he were on a bobsleigh. Within sixty yards was a solitary bush. Would he make it? If he didn't he had a long way to go. Crash! the bush caught him and there lay Jack. Roy went down to help, but Jack was none the worse.

We were now going frightfully slowly, and kept on waiting for stragglers. At about 2-30 we started to climb again; it was steep, but not dangerous. I had been eating on and off, but was beginning to feel exhausted. At one time it seemed that with every footstep I went into the snow, and now it was over my waist, so that the effort required to keep on pulling oneself out was considerable.

Still, the incentive to go on and keep going was simply terrific. I was quite determined to get out of German-occupied Italy if it was humanly possible. My legs began to splay outwards, and I thought how absurd I must look—rather like an unwieldy colt. I cursed my right leg for being idle and inefficient: "You, who should be the better and stronger of the two limbs, are now letting down the whole party; just look what Left Leg is doing, dragging along everything. For Heaven's sake, pull yourself together and try to appreciate the fact that if Left Leg should follow your disgraceful example, we shall be stuck."

Then—plop! In I would be again. Always it was my right leg which sank in. There it was, firmly yet comfortably wedged; it was pleasant to rest thus. So often I felt that I could drop off to sleep in no time, and surely it would do me good. But gallant Johnny was always behind me and seemed to be for ever heaving and tugging at my legs. What a first-rate and true friend he was! I wonder how I should have got on without him.

But a time came when I felt that, unless I rested and used my remaining energy to eat, I should soon pass out. So Johnny and I sat and ate a good quantity of bread and bacon, and drank two mouthfuls of brandy. After half an hour we moved off at 4 a.m., feeling miles better.

I started off on hands and knees, as by this method the weight of one's body was well distributed, and there was none of that ghastly burial in the snow. We caught up with some others, and as they were walking easily without sinking, we got up and did so, too. We reached the summit at 5-30 a.m. on March 25. The top of the mountain was about 9,000 feet, and I estimated that the height we crossed was about 7,000 feet. I imagined the worst was over. But I had not reckoned on the blizzard soon to overtake us and scourge us pitilessly.

We waited on the top, whilst mist and cloud floated by. Until this was past, Buster said he could not be sure of the way. The wind was blowing fairly hard, and it was horribly cold. The time might well have been spent resting, but it was impossible to remain sitting for more than a few moments, and in fact, quite unconsciously we kept sheltering behind each other to get out of the wind, and so were slowly to see for more than a short distance. But the snow was hard, and that made all the difference.

We again set off. The wind increased in violence, until in an hour's time a howling blizzard was blowing. It was bitterly cold. Frozen sleet lashed one's face and it was hard to see for more than a distance. But the snow was hard, and that made all the difference.

Twice during the day I felt myself going groggy, and my legs beginning to wander about out of control. But the moment this started I stuffed myself with bread. It was not easy, for the force of the gale compelled one to use all one's strength for walking, added to which the dry bread was difficult to swallow, but the latter was easy to overcome by eating snow with bread. By this time all the snow was frozen hard, so that it was necessary to break off chunks by crashing one's heel violently into the ground. Bread and ice was not an ideal diet, but it kept me going.

However, the blizzard was a blessing in disguise, for no Jerry patrols would willingly wander about in such weather, and even if they were patrolling the area with ski-patrols the visibility was so bad that it would have been necessary for them to come right on to us to have done any good.

The flying helmet gave good protection to my ears and face. We all looked like snow-men. All our hair, eyebrows, eyelashes and moustaches were hung with icicles. This did not matter, except in the case of eyelashes. But an icicle would form half on one's upper lashes and half on the lower ones, and it would be quite impossible to get it off without sacrificing a quantity of eyelashes!

Towards the end, as I walked along, I kept on imagining that on my right stood an Italian farmhouse, and that round

the farm stood a wire fence. Constantly I glanced up to look at this farmstead, but of course it was never there. Why this curious association of ideas? Was it that during my travels I had passed so many hundreds of such farmsteads, and was the wire fence a mental relic of a P.O.W. camp? Or was it something to do with that awful shepherd's hut, which was buried in a wilderness of snow such as we were now passing through, and in which we had spent such a miserably cold ten days?

Soon after midday we began to descend. It was rather fun going straight down, and the farther we descended, so the wind grew less and less. Finally, we found ourselves about 1,500 feet above a shell-shattered village. Was it, as it seemed to be, empty, or did its ruined houses conceal soldiery? If so, were they British or German? Gingerly and quietly we crept down and into the village. All was quiet as the grave.

Suddenly, and quite out of the blue, jumped some men with Tommy guns. For a fraction of a second I think we must all have felt horror-struck at the prospect of falling into enemy hands again. I don't mean that the Germans treated their prisoners badly; my experience was the reverse. But for myself I momentarily had visions again of the appalling existence in a P.O.W. camp.

But, thank God, they weren't Germans. They were men of the 6th D.C.O. Lancers, and never in my life have I been treated more kindly. We were taken into the village church, given *chai*, biscuits and bully beef, and as many cigarettes as we could smoke. Looking back, it was the most delightful party I've ever attended.

At about 3 p.m. We walked another mile or so and got a truck. How lovely it was to get into a British truck again! It was the first lift of any sort we had had throughout our long journey. What a treat it was for our legs to feel an engine doing a spot of work for them!

Arriving at the H.Q. of the 6th Lancers we were again royally entertained. Then to a rest camp, where we were given a complete new outfit. Our old worn-out garments, verminous and lousy, were put on a funeral pyre. They had done their duty well and truly, but their period of usefulness was definitely over.

That was a happy week-end, spent in drinking innumerable cups of tea, munching chocolates and smoking cigarettes. On the Monday morning, just before our departure, there was a tap on the door, and in came the Camp Quarter Master Sergeant. Excuse me, Sir, there's just one little thing you haven't signed for."

I was back in the Army!

RATIONING IN ENGLAND*

By R. DE K. M.

THOSE going Home on leave or retirement will be interested in this account of the rationing system in force at Home.

On arrival at the port of disembarkation passengers undergo an examination by the officials of the Immigration Dept. Certain questions are asked, and passengers are required to state how much money in the shape of coins and notes they have with them. The maximum allowed in this form is £10; larger amounts must be carried as Letters of Credit or Travellers Cheques, on which no limit is imposed.

After examination your passport is stamped, and you are told to produce it at the Food Office of the area in which you are going to reside, when an Identity Card and Ration Book will be issued. It is advisable to do this as early as possible, for until you have obtained your Ration Book you will be dependent upon your friends or relations, who will have to share their rations with you. Alternatively, if staying at a hotel, you will be required to produce your Ration Book after four days' stay; failure to do so will probably result in a request to leave.

On application to the Food Office you will be given an Identity Card and Ration Book. If your stay in England is only temporary, you will be given a Temporary Card available for three months, which will have to be renewed later if the need arises. Unlike Identity Cards in India, a photograph is not required.

Your Ration Book also contains your Clothing Book, bound separately, and you are advised to remove this. The current Clothing Book became current from 1st August, 1944, and twenty-four coupons have been allowed for the first six months of the year. If your stay is temporary, you will probably be given coupons *pro rata* to the currency of your Identity Card, i.e., 12 for three months, and you can apply for more when it is renewed. The procedure in regard to this, however, seems to vary at different Food Offices, but the greatest number you could possibly expect to be given in your Clothing Book would be twenty-four.

As will be seen, this number will be hopelessly insufficient for the ordinary person going home on leave or retirement, and to provide for cases of this kind you are entitled to apply for and to receive a certain number of Supplementary Coupons. Your Food Office will tell you to whom application for these must be made, and will supply the appropriate application form. Before filling

*We are indebted to the "South India Review" for permission to reproduce this article.

this form in, it will be necessary to make as complete a list as possible of what you require in the way of personal clothing and household linen, and you will be required to give this information in the form with a brief statement as to why Supplementary Coupons are necessary. It is well to remember that if you arrive in the colder months of the year and are returning to the East you will not only want thick clothing but also thin clothing later for your return, and your application should take this into account.

The number of Supplementary Coupons issued by different offices appears to vary a great deal, and the writer has heard of a case in which as many as 200 coupons were given, whilst in another case which seemed equally deserving, only 32 were issued. The following will give some idea of the number of coupons to be surrendered when different articles of clothing are purchased.

Men		Women	
Suit with waistcoat ..	26 coupons.	Frock, woollen ..	11 coupons.
Rain coat ..	16 "	" " cotton or silk ..	7 "
Sports Coat ..	16 "	Coat (lined) ..	18 "
Grey flannel trousers ..	8 "	" (unlined) ..	14 "
Shoes ..	9 "	Mac ..	9-15 "
Shirt ..	7 "	Nightdress ..	7 "
Vest ..	6 "	Skirt ..	7 "
Socks ..	2 "	Shoes ..	7 "
Collar ..	1 "	Blouse ..	4 "
		Gloves ..	2 "
		Stockings ..	3 "
		Material 36" wide ..	2 "

per yd.

It will be readily appreciated that unless a liberal supply of Supplementary Coupons has been obtained, any purchase of clothing or linen on a large scale will be impossible. Therefore, when going home, take with you any serviceable clothes or linen likely to be useful, and especially the latter if you are setting up house, for not only do articles such as sheets, towels and kitchen cloths need coupons, but certain items are practically unobtainable and, if available, are of poor quality and expensive.

So much for Clothing, and now for the Ration Book itself. This can be most conveniently described under the five sections into which it is divided, viz:

- (1) The Weekly Ration; (2) Points; (3) Personal Points;
- (4) Tea; (5) Soap.

For the purpose of the Weekly Ration the book, which became current for one year from 23rd July, 1944, has been divided into 52 weekly periods, and the following table shows the different articles of food rationed and the quantity, or value in the case of meat, to which you are entitled per week. The scale is subject to

slight alteration from time to time, advertised by the Food Ministry in the newspapers.

Meat	...	1s. 2d.
Eggs	...	As available. Seldom more and often less than 1 per week.
Butter	...	2 ozs.
Margarine	...	4 "
Fat	...	2 "
Cheese	...	3 "
Bacon	...	4 "
Sugar	...	8 "
Milk	...	$\frac{1}{2}$ pint per day.

Children are allowed certain additions.

To obtain your weekly ration (daily in the case of milk) it is necessary to register with a butcher, grocer and milkman, and to fill in and hand to each the forms provided in the Ration Book. When supplies are made, a line will be drawn by the supplier against the week to which they are due. When going away from home you can get from your Food Office a Temporary Ration Card to enable you to obtain supplies at the place where you are staying. You do not have to produce your book or Temporary Card when having meals at restaurants, nor when staying at hotels for periods of 4 days or less. It is, however, well to remember that casual meals in hotels are not always easy to obtain, as preference is rightly given to residents.

For the purpose of Points and Personal Points, the Ration Book is divided into 13 periods of 4 weeks each, and, unlike the weekly ration, purchases against Points and Personal Points can be made at any time during the period, but unused Points cannot be carried forward to the next ration period. Points in varying numbers have to be surrendered against the purchase of items such as "Spam" (chopped ham in tins), tinned fish, tinned fruit and jam, biscuits, rice and dried fruits. You are allowed 24 Points per period, and the number to give up varies from 31 for a tin of first-grade salmon to 1 for a small tin of herrings, so that purchases must be made with discretion if Points are to be used to the best advantage.

Personal Points, like Points, can be used at any time in the Monthly Ration Period and at any shop, and are for the purchase of sweets and chocolates of which you are allowed 12 ozs. per period.

The Tea ration is 2 ozs. per week, and it may either be obtained weekly or in quantities of 8 ozs. for the Ration Period of 4 weeks. For the single person or small family this allowance does not go far, and the occasional present of a parcel of tea from India is a most acceptable one. Coffee is not rationed, but usually requires more milk to prepare than tea.

The last item in the Ration Book is Soap, and you are allowed 4 small cakes of toilet soap, or 2 small cakes and a packet of soap flakes for the four-weekly period.

Two other commodities rationed are fuel and petrol, but as quantities vary in the case of individuals and also in different localities, the quantities allowed cannot be stated here.

Drinks are not rationed except by availability, or more correctly by their non-availability. Spirits, unless you or your family happen to have been a recent and regular customer of a wine merchant, are extremely difficult to obtain, and then only in very small quantities. Beer and stout can generally be obtained, though difficulty in getting supplies in some localities does seem to arise at times.

Although the scale of rations and points may appear to be small, every one at Home seems to agree that when supplemented by unrationed food, such as bread, potatoes, vegetables, fish, pork pies, sausages and tinned soup, it is ample, and there is no reason why any one should go hungry, though many people have lost weight. Every one with whom the writer discussed "rationing" was full of praise for the system, which has been designed to ensure an equal division of the available essential supplies in the country amongst rich and poor alike.

The Value of Infantry

"The role of the infantry is to close with and destroy the enemy. Artillery cannot shell a determined enemy out of a position, nor can they alone stop an enemy attack. Armour cannot destroy in detail nor hold ground, and its action is limited by the ground and the antidotes to armour, such as the anti-tank gun and mines.

"Infantry is the only arm which in the offensive can operate and get at the enemy anywhere, and in the defensive can definitely stop the enemy by means of its own fire power—that is, small arms.

"The ultimate issue, therefore, on the battlefield must depend on the infantry, and, consequently, the outcome of any war. I say this with all due respect to the other arms, whose support is directed toward assisting the infantry to achieve their object, and without which the infantry would suffer unacceptable casualties."
—*Major-General T. N. F. Wilson.*

MILITARY READING (II)

BY SIEGFRIED P*

LORD WOLSELEY declared at a lecture in Dublin that: "A certain amount of reading and a certain amount of study is absolutely necessary for any man who ever wishes to command troops in the field; and," he added, "so far as I know of the study of war, the great thing is to read a little and think a great deal and think it over and over again."

As Lin Yutang tells us in "The Importance of Living," Confucius, also, evidently felt that scholarship without thinking was more dangerous than thinking unbacked by scholarship. Confucius remarked: "Thinking without learning makes one flighty, and learning without thinking is a disaster."

Napoleon said: "If I always appear prepared, it is because before entering on an undertaking I have meditated for long and have foreseen what may occur. It is not genius which reveals to me suddenly and secretly what I have to do in circumstances unexpected by other people; it is reflection, it is meditation;" and to prepare he advised thus: "Read and reread the campaigns of the great captains. . . . the campaigns of Alexander, Hannibal, Cæsar, as well as those of Gustavus Adolphus and Turenne."

It was the art of Command, generalship, he had in mind; the stratagems of Hannibal, the manœuvres of Alexander, Cæsar's utilisation of moral forces, and the strategic march of Turenne—the art of grand or major tactics; the devices by which the commander seeks to overthrow his enemy on the battlefield, his use of mobility coupled with surprise, not minor tactics or drill movements of the battlefield.

With strategy,—or bringing the enemy to battle where the Commander wishes and the operations which follow the battle,—ordinary military virtues are not directly, or rather are much less, concerned than intellectual capacity and a wide knowledge of war. Said Henderson: "No great commander has attained a wide knowledge of work from personal experience alone. All have studied from books the experience of past great commanders."

Not the least of such experience concerns their understanding of human nature and morale as affected by discipline, fear, hunger, over or under-confidence, distrust, patriotism, politics, etc. If the master of major or minor tactics ignores this, he risks disaster. As Henderson wrote: "Human nature, the paramount consideration of either tactics or strategy, remains unaltered. The art of

*The author contributed an article entitled "Military Reading" to this *Journal* in April, 1940. The above contribution, largely extracts from Henderson's classic "The Science of War," has been compiled to focus again the attention of officers to the great value to be derived from reading.
—Ed., U. S. I. Journal.]

generalship, the art of command, whether the force be large or small, is the art of dealing with human nature."

Sir Charles Napier, himself an example of the highest military genius, who not only did not disdain incessant study of his profession, but thought it indispensable to success, gave the following advice to a young officer: "By reading you will be distinguished; without it, abilities are of little use. A man cannot learn his profession without constant study to prepare especially for the higher ranks. When in a post of responsibility, he has not time to read; and, if he comes to such a post with an empty skull, it is then too late to fill it. Thus many people fail to distinguish themselves, and say they are unfortunate, which is untrue; their own previous idleness unfitted them to profit by fortune."

Luck in War

"The aim of our campaign in Italy was to destroy as much of the enemy forces as possible, and to produce a first-class victory just before the Second Front was launched. Rome was that victory. The break-out from the Anzio beach-head provided an outstanding example of the difficulties of correct timing.

"General Clark in planning this break-out had to have four days to move his men and guns and tanks into position secretly, otherwise the element of surprise would have been lost. Therefore, with that time lag, I had to calculate when the correct moment had arrived by anticipating several days ahead. I don't wish to blow my own trumpet—luck plays a great part in these matters—and up to date I have been lucky.

"Rome fell on June 4, twenty-four to forty-eight hours before the western invasion had been launched. We made a slight miscalculation there—it was running it a bit fine—but it worked out all right because the Second Front was postponed for 24 hours because of bad weather—luck again."—*Field Marshal Alexander, addressing war correspondents in Italy.*

"A Mercenary Army"

"The strictures of an irresponsible American journalist, one of whose charges was that the Indian Army was a mercenary force—volunteers being apparently of a lower status than 'draft' men—remind one of A. E. Housman's poem on 'A Mercenary Army'.

These, in the day when heaven was falling,
The hour when earth's foundations fled,
Followed their mercenary calling,
And took their wages and are dead.
Their shoulders held the sky suspended;
They stood, and earth's foundations stay;
What God abandoned these defended,
And saved the sum of things for pay.

"There is the stuff of immortality in this."—

"Janus," in *"The Spectator."*

POST-WAR CAREERS FOR YOUNG OFFICERS

BY ALAN RASP

THERE is a current impression that the young Officer or Soldier who, at this juncture, considers his post-war prospects is a mere day-dreamer. This is very wide of the mark—there is much that he can do to-day. In fact he is now being given, as will be explained later, an unparalleled opportunity to fit himself into the right *niche*—if only he will take it.

Discussion with young men soon shows that they often know what they would *like* to do, but this is invariably stultified by the addendum that nothing can be done about it "till the war is over." The correct approach, surely, is:

- First:* to find out what he is best *fitted for*,
- Second:* to decide if he prefers work at home or abroad,
- Third:* if the preference is for abroad, to find which country will meet his *particular* bent; data is necessary.
- Fourth:* to consider possibles and frame a plan.
- Fifth:* To find what he can learn now about his choice—*and learn it.*

This article will deal with the subject accordingly.

Of course, the Government has promised not only food and homes, but work for all, and if the demobilised ex-Serviceman is content to wait for the Ministry of Labour to hand him something on a platter, he will no doubt be served. It does not, however, seem likely that those content to accept this portion of nurturing from the cradle to the grave will ever satisfy their ambitions—if, indeed, they have any. The William Morris of this world did not become Lord Nuffields without thinking for themselves and taking risks.

The unparalleled opportunity now afforded is twofold; first, men have been forced, willy-nilly, out of their peacetime avocations, often the wrong ones, and secondly, by their journeys abroad, they see countries and other men of varied nations and walks of life.

Before the war many men were in the wrong job, because they either neglected their parents' advice when good, accepted it when bad, or apathetically followed in father's footsteps! Once committed and bound by the chains of hire-purchase, they were afraid to change. One of the blessings of the war is that it has given such men, perforce, a second chance, much as a certain pre-war dock clerk who lost his job through asking for a rise, emerged as one of the leading playwrights of to-day!

Let, therefore, the young man be introspective. If in his pre-war avocation he felt that he was denied a sense of fulfilment, it is

more than likely that he started in the wrong career. But to know what he would *like* to do is only a small part—he must consider if he is mentally, financially and temperamentally equipped for the change he yearns. The course suggested will, of course, apply equally to boys who left school with no fixed career in mind.

Unfortunately the majority shy from the very sound of Psychiatrist, or even Vocational Psychologist, whereas if they were invited to consult an expert in placing the right man in the right job, they would queue up! For those at home and in a position to do so, the soundness of consulting these specialists is backed by the fact that the Army has taken them over as advisors on the Personnel Selection Boards. Army Educational Officers can advise where and if a Psychiatrist can be consulted.

The Psychiatrist does not work by magic. He simply makes a study of the characteristics necessary for the various careers and then, by certain tests, verbal, non-verbal and reasoning, deduces which of several careers will suit the candidate.

The system has progressed far, especially in American civil life, since its inception in 1914. It is essentially a human science, for it sets out not merely to make a cold scientific investigation, but to ascertain individual idiosyncracies and to define the endowments of the individual, such as his *nous*, imagination, the essential soundness of his nature, as well as to check such obvious points as manual dexterity.

Having come to a conclusion on these matters, the psychologist next turns to the qualities desirable in the various occupations, a subject on which he is naturally fully informed. But before making suggestions for the individual in question, he takes into account the family traditions, financial prospects, special wishes, age, and previous training, etc.

That the Army has been wise in consulting the psychiatrist is already proved. Before cadets for O.C.T.U.s were scientifically selected, 25 per cent. of those who commenced the course were eventually found to be unsuitable. Now there are but 2 per cent., a high tribute to the new system.

Unfortunately, however, not only are those overseas precluded from this advice, but those at home may find a consultation difficult to arrange. But, even so, there is much the individual can do. He cannot carry out scientific tests on himself but he, at least, may have ambitions. He can certainly do what most youths, parents, and even many schoolmasters are too lazy to do—investigate the occupational field. This in itself is of great value, for while he may have personal leanings towards a certain career, he should view such wishes with caution.

When, however, he is in possession of detailed information about the requirements, particularly in temperament, of the occupation, its prospects, disadvantages and risks, and has secured something more concrete than a boy's impression, then indeed he is in a better position to choose.

Even the youth with no fixed desire will profit from such a study, for it may set a spark glowing and so save him from trying

after the war to adapt himself to whatever job is on offer, regardless of his suitability for it, rather than to follow the sane course of choosing the career to fit his desires and, so far as he can judge, his capabilities. The study of the requirements of various careers may, on the other hand, at least show him in certain cases that he would merely be striving in vain beyond his depth. In any event, it will help him to make an intelligent choice of the best profession. How much better this is than mere guesswork or acceptance of fate! To provide himself with an objective will in itself be salvation.

Home or Abroad?

Having narrowed down the choice of career to three or four he must now decide where to seek his fortune.

Before the war, a young man's horizon was usually the margin of a book, a map, or a cinema screen. His viewpoint was limited to that of his own kind, Scot to Scot, clerk to clerk, Sandhurst boy (sorry, man!) to Sandhurst man. Any new venture was a shot in the dark.

To-day this is not so. Many are seeing new lands and can, if they use their eyes and imagination, judge for themselves. Even if they do not visit all the countries which interest them, at least they are thrown into daily contact with men of all walks of life and of all Dominion and Allied countries. This golden opportunity must be seized by "pumping" as wide a variety of men as possible. Before doing so, it is well to be clear, in general, on the pros and cons of a life abroad.

Many an ex-Serviceman will look forward with horror to a return to the daily 8-45 and the black bag in the overcrowded market of England. He may rightly realise that in the Dominions he will find greater scope for initiative—that responsibility will come earlier than at home—that he will achieve a broader outlook and have vastly better opportunities for sport. Modern science, he will tell you, has made ill-health abroad a thing of the past.

Let him study the other side of the picture as applied to the country he has his eye on, and the particular career he has in mind. Does he want to settle down with a wife, family and his little possessions around him? If so, he must go carefully, for in many lands the children *must* be sent home at six. There follows a life of half-time grass widower when the lady in the case is called home to fill the *role* of mother—next, a period when she is taking the stage as wife and is consumed with anxieties for her children in a more or less unknown holiday home in England.

Make no mistake—this is a very real problem—one which often ends in early retirement and the death of ambition.

There is another setback yet to be faced on retirement from abroad. The daily-breader in England has not only a home of his own but a village, or at least a street of his own—a place in which he, his wife and children have made life-long friends. Relations are near and in regular contact. But the home-coming wanderer? Oh, no. For him and his family, life must start all over again, for childhood friends are scattered.

However youth, thank God, usually laughs at difficulties and many will elect the more adventurous life abroad. Very well then—let him collect facts. Libraries and Dominion Houses are useful sources of information, but to clothe the dry bones collected, he must turn to his newly-met friends and gain the human angle.

If he is wise he will not be content to judge on pre-war conditions. He must find whether there is scope for the career he elects in the country of his choice, viewed in relation to post-war tendencies. For this he will find *The Journal of Careers*, with its lucid "Career Summaries" and articles on overseas careers by men such as Mr. Donald Cowie, invaluable.

Canada, for example, is regarded by many as just the place for the farmer's lad. True enough in the past—but to-day, thanks to her development as a wartime producer of munitions, her future holds out a very different prospect. She may, in fact, turn from a primary agricultural country to one with infinite opportunities in the mineral and manufacturing industries. The youth with an urge for farming who, naturally, thinks of Canada should go very carefully. He may even not be admitted.

On the other hand, the man with an inventive genius, especially in devices to mechanize what is now done by the industrial labourer, might not realise that Canada holds ever-increasing opportunities. This is because she is already the third greatest industrial state in the world—and yet her unlimited natural resources are so far still untapped for lack of labour. Mining will certainly boom—gold, high-grade iron-ore, copper, bauxite (for aluminium) asbestos are only a few examples. Wood pulp for plastics will be in great demand. Electricity, chiefly for refining these metals, will offer many openings. It is a natural corollary that building will require many specialists in such branches as modern factories, earth hauling and excavation.

South Africa, on the other hand, holds out hope to the farmer. Many, hearing of ex-Servicemen who failed as farmers in Africa in the 'thirties, or who were refused admission, may scratch that Dominion off the slate. But the future is brighter than the past—the Government and the 1820 Settlers Association will do all they can to stimulate what is, after all, Africa's leading industry, firstly to feed and clothe Europe, and secondly to raise the standard of living of the negro population, in itself a vast market. Individual side-lines are worth special study—canning and seed-raising being examples.

The effect of the war on this deep, untapped market has been a demand for skilled workers in other fields—more cereals means that new plants to mill the flour or make breakfast cereals will spring up—mining engineers who have acquired experience in handling native labour will be needed.

These two random examples in turn produce new calls—farmers need fertilizers, and their produce must be converted into food, opening the field to brewers, confectioners, sugar and starch makers and so on. New factories require oil, glass, cement, iron

and steel furnaces. In fact South Africa, owing to the war, is turning from being an importer of steel and manufactured metal goods, to being an exporter. Obviously she is short of skilled workers and is still an expanding dominion.

New Zealand suffered, before the war, from a plethora of applicants for the few jobs advertised. This was a natural result of being too far from markets for the export of agricultural produce. In consequence, New Zealand's youth turned to engineering and allied trades. It seems natural, therefore, that the English emigrant will have to face heavy competition from local men who are not only highly skilled but understand local conditions.

This dominion accordingly seems to be one for the man who has got something the others have not—for example a very high qualification in the development of new industries, a specialised scientific training in forestry or the development of forestry by-products. New Zealand, in short, appears to be a country in which, above all others, enquiry to discover the right niche will be well repaid.

The Colonies. In seeking information about the Colonies, political progress should loom largely. Any Colony which, for example, has such a high educational standard as to be nearing Dominion status, will have less to offer. Just as in India the majority of posts in the Civil Service, police, forestry, etc. are reserved for Indians, so in a Colony rapidly developing, preference must, rightly, be given to the inhabitants.

But in Colonies which are still primitive there will be a wide variety of uplifting, constructive work, especially in the civil services—police, customs, medical, education. The range is legion provided suitable training or a good university degree is obtained. To those seeking more independence, the life of a planter is still a possibility. Salesmanship in trades such as radio, motor cars, and aeroplanes by those who can combine commercial knowledge with technical experience is worthy of investigation, as is the growth of newspapers and radio stations.

Possibles and a Framing Plan

The young officer or soldier has by now got a good deal beyond the "I'd like to be an engine driver" stage. He knows several careers for which he is best fitted, whether he can develop them at home or abroad, and which country will probably offer most scope. But there are a few points to categorise before he makes his final decision. Is he going for "job getting"—a paid post with security and a pension? Or "job making" with its adventure, risk of poverty or riches, and all the freedom of being his own master? Or remain in the Services as a regular? In each of the three he must judge boom possibilities.

It would be pointless to discuss here all openings, but the ponderer should list those safe posts suited to himself, e.g., school-master, games-master, Civil Service, estate agents, indoor lighting, heating, sound proofing and the like. All safe, paid, and requiring no capital. Will they boom after the war? Consider each.

Many talk vaguely of "getting a job in industry." The writer has worked in intimate touch with men of varying grades, from Managing Directors to foremen. As a soldier he is forced to admit that the industrialist would have few vacancies, with a good future, to offer to the untrained ex-Serviceman. The writer could certainly not hope to hold down, without training, an industrial job working in daily touch with men who have a specialised knowledge of each varied branch of each trade. I stress the words "without training."

Factors to balance are whether the work can be taken up where one lives (a great saving of expense), how much capital is required, and if it is likely to boom. Examples of careers which might be considered are, travel agencies, especially to and by the sea, civil aviation, building, hotel management, greyhounds—all obvious "boomers." Motoring is another, but there will be a glut in mechanics. The prospects of big rewards and of being one's own master are tempting, but very sound advice is essential before capital is spent. There are a thousand ideas to toy with—eggs, furs, honey, road houses (out-of-date?—consider aerodrome-side houses?), furniture making and selling—the list is legion.

The Services may possibly afford the choice of, firstly, a temporary career during post-war years and, secondly, of regular service. Temporary service may tempt many, especially those with no specific aim, but before accepting this easy solution, it will be well to bear in mind the loss of priceless years.

As regards regular service, even the successful war-time sailor, soldier or airman should think carefully. Is he temperamentally as well fitted for the dull routine of a service starved of modern equipment in peace-time as he was for the rough and tumble of battle? Will the service in future offer sufficient attraction? Rightly or wrongly it was, in the past, regarded as an unprofitable waste of brains. Will it boom and bring riches? Certainly not riches, but at least the Paymaster pays up on the dot, trade depressions or not.

It seems unlikely that it will boom, but the Country will, one hopes, be afraid to repeat the "axings" of the 'twenties and 'thirties. But if he has the right temperament, prefers knocking about the world to a daily Tube ride, and has the brains and personality to enter the Staff College and gain promotion by merit, there seems little point starting all over again in a new career.

The warrior is now ready to make his final choice. It only remains to use every spare second during the war in learning all about it.

What can be Done Now

There is hardly a career about which a great deal can not be learnt, even in war-time. Every soldier experiences those periods when weather or other causes involve long spells of boredom. The super-pessimist may even like to be ready to commence study the moment he is a prisoner of war! What can be done during these periods?

Firstly, if the chosen career involves the expenditure of capital, a saving plan must be worked out and continued. Even if the subject is one of the few for which specific study is not possible, the improvement of one's English cannot but be a help; the ability to understand and be understood in the written and spoken word helps in every career.

The future mining engineer, industrial leader or worker in plastics, for example, cannot secure practical knowledge, but at least he can get a lot of theoretical study behind him in, respectively, mathematics and geology, physics, or cost accounting and industrial psychology. Even the would-be doctor can absorb a great deal of biology, physics and chemistry. Study need not, however, be confined to theory; the man with a useful hobby—carpentry, for example—can obtain practical instruction unless he is overseas.

It remains to suggest some specific sources of guidance for those seeking advice on what to study:

- (a) The *Journal of Careers* will give details of study for innumerable careers,
- (b) Many Correspondence Courses are advertised,
- (c) For officers, the Employment Bureau of ex-Army Officers, and for other ranks, the Education Officer, have a vast amount of data available.

Above all, the War Office Vocational Training Courses are not nearly widely enough known. Under this system, for a nominal fee of ten shillings the student can receive instruction in any of 139 courses, varying from accountancy (16 courses) to grocery, insurance, law, and so on. Students, for example, can take a course adapted to the requirements of the Intermediate Examination of Building Societies Institute or for the London Matriculation Examination. Text books and transport are provided free, the student is allocated to a Correspondence College, free of charge, is given the syllabus and the name and address of the tutor. Any useful hobby or handicraft can be developed in a practical manner and in many cases tools are supplied free of charge.

Above all the habit of academic study, so soon lost under service conditions, must be fed if it is not to die, and the ex-Serviceman must choose his career and not allow it to choose him. Thus, when given the opportunity of demobilization, he will be ready to state clearly his aims—an aim for which, in the meantime, he has put in many hours of hard work during the precious years of war and youth.

* (A short article dealing with the special application of this subject to middle-aged officers about to retire with a pension, will appear in our next issue.)

SOME FURTHER REFLECTIONS ON WAZIRISTAN

BY "MIR DÖD"

COLONEL SIMPSON'S articles on the History of the N.-W. Frontier which have appeared in recent issues of the *Journal* are full of interest, and few will disagree with his final analysis. Like so many other writers on this important subject, however, he is driven to the conclusion that some form of the "Sandeman System"—call it what you will—is necessary if the tribesmen are ever to be pacified, but this is a problem which has hitherto baffled all attempts at a solution.

It would be idle to minimize the difficulties, but it may perhaps be worth while to recapitulate some of the major obstacles to a peaceful penetration of Waziristan, and to put forward a very tentative suggestion in the light of the hard facts.

We have to contend with:—

The nature of the country,

The attitude and characteristics of the tribesmen,

Expense,

and various policy problems, external and internal.

Let us face them.

(1) As Colonel Simpson points out, the whole of Waziristan is very barren. Few areas can be made productive, and all of these, incidentally, are in Wazir territory and none in Mahsud hands. The Daurs own all the cultivation which exists in the Tochi Valley, but drought, spates, intense cold, and heavy hailstorms have all in turn prevented the fullest use being made of the small areas elsewhere in Waziristan on which crops of any kind could be grown, and when we add to this the constant risk of raids, it is small wonder that nothing has come of the agricultural and other projects which from time to time have been initiated.

Irrigation has not been found possible for various reasons, amongst which expense and the nature of the soil (mostly shale) were no doubt the deciding factors, and, except in the main streams, there is very little water available.

(2) Wazirs and Mahsuds all originated from the same Darwesh Khel stock, and although the Mahsuds are prone to forget this, they are in fact very closely related to the Wazirs and have much the same characteristics. All are extremely fanatical, but possessed of a keen—if perverted—sense of humour. They are very lazy, and although avaricious to a degree will take no thought beyond the needs of the moment—unless indeed they can see a large and immediate profit.

The whole population is pastoral, and *not* agricultural, and they only grow crops just sufficient for their own requirements. They are migratory, and some of the Wazir Sections move with the seasons across the Durand Line to and from Birmal and other areas of Afghanistan. Many of them live in caves for part of the year, and for the rest in small grass shelters, but there are three large villages which deserve the name of "towns," and settlements or collections of villages in several areas.

In the case of the Mahsuds, a complete tribe does not necessarily keep to the area where it predominates, but splits up into small sections inextricably mixed over the whole countryside. In one small portion of the Khaisara, for instance, there are Miche Khels, Nekzan Khels, Urmur Khels, Shabi Khels, and several others, in the space of three or four miles, thus adding a further complication whenever any punitive action has to be taken against a particular sub-section.

There is no need here to recapitulate the excellent military qualities of these tribesmen, as they are well-known. Potentially they are perhaps the finest fighting men in Asia, with unsurpassed powers of endurance. Unfortunately, the Wazirs are particularly treacherous and untrustworthy, while the Mahsud does not take kindly to discipline, and, besides being extremely obstinate and self-willed, is often betrayed by his fiery nature into the most desperate civil or military crimes which are usually irreparable: he cannot be handled at all except by his own officers, who know him intimately.

Wazirs and Mahsuds dislike and despise all types of Indians, with the exception of a few classes whose military qualities they recognize. They will often refrain from attacking certain battalions which are well known to them, unless they consider the circumstances exceptionally favourable to themselves, but in general they possess an unbounded self-confidence which, in battle, stands them in good stead.

Their dislike of others is heartily reciprocated by all, and their immediate neighbours (such as the Orakzais, with whom they come in contact across the Upper Miranzai and Kurram Valleys) are in perpetual feud with them. They may be fanatical Mussalmans, but they are in many respects unorthodox, and no follower of the Prophet will forgive them for their murders of men at prayer, or in the mosque, of which many cases are on record.

Their way of life is primitive, and they look upon war as a game—in much the same way as we should enjoy a football match. The rise of each new generation usually means trouble in Waziristan, in cycles of about seven to ten years. They have no use for education, though there is a school for Bhitanni children at JANDOLA, and another for Wazir children at WANA, and possibly others. The Maliks have little hold upon them, for each man thinks himself just as good as, or better than, his neighbour, but fortunately for us there has always been antagonism between Wazirs and Mahsuds, and they are perhaps never likely to combine against us as a whole.

Many attempts at a *rapprochement* have been made by the Faqir of Ipi and others, but the Mahsuds all follow Fazl Din, son of the "Mullah Powindah," and although this man is by no means friendly to us, he is very jealous of his own prestige and power. The Faqir of Ipi is in his eyes an upstart, and a Tori Khel Wazir to boot, and Fazl Din will have none of him. Meantime, the annual disputes about grazing rights on the Razmak plateau continue as usual, and Mahsuds and Wazirs remain at enmity.

The tribesmen fiercely resent any encroachment upon their independence, of which they are intensely proud, and in passing it may be said that exactly the same feeling persists in Tirah, where any advance by us would immediately bring in the united strength of all the Orakzais and Afridis to defend their land.

Ethnologically and topographically all these tribesmen belong to Central Asia and not to India, and their outlook is to the West into Afghanistan. They have a marked trust and liking of British officers and generally get on very well with them, but apart from this they prefer to have as little as possible to do with India—with which, indeed, their connection is purely arbitrary.

(3) The original cost of building roads in Waziristan was notoriously very great, and the amount spent annually on their maintenance and upkeep must be enormous. These are all military roads, strategic and uneconomic.

It is incredible that any Government would face the even greater cost of the building and upkeep of a railway from (say) Bannu to Razmak, which could offer no possible economic return and would require in addition to be constantly and most vigilantly guarded throughout its entire length. Such a railway would be of no help towards civilizing a Mahsud or Wazir. On the contrary, it would present him with the highest form of temptation in the shape of a most amusing and gratifying moving target, on which he would no doubt be only too delighted to register.

(4) Fraternization between troops and tribesmen has been suggested. It is not yet possible. It may be that the mutual dislike and distrust which at present exist might in time be overcome, but security conditions neither permit the tribesmen to have access to the Camps nor the troops to wander about outside.

The tribesmen would never allow troops to enter their villages, nor would it be safe for them to go there. There is no medium of conversation, and even the enlisted classes of Pathans find great difficulty in understanding the Waziristan dialect—which is quite as different from Yusufzai Pushtu as Cornish is from Cockney.

There was, indeed, a time when, at the spring a mile or so outside Manzai on the Khirgi road, the Bhitanni ladies showed themselves by no means averse to dalliance with some young British signaller out for his evening stroll, but such contacts are both undesirable and dangerous, and probably the only tribesmen who are normally seen at close quarters are the Khassadars. Otherwise the locals keep very much to themselves, and expect the troops—who on their part have no inclination to do otherwise—to mind their own business.

There is in fact no common ground for an understanding.

(5) There are strong arguments against the unrestricted use of air power, which is after all a purely destructive force, when applied to Waziristan. Modern bombing is a terrible weapon which may destroy communications and wipe out whole cities. The tribesmen's Waziristan has neither communications nor cities (unless we count MAKIN AND KANIGURAM), and conditions of cloud, air and weather amongst these high mountains are such as to render low flying exceedingly dangerous and accurate bombing almost an impossibility. Targets will always be small and perhaps impossible to pick out, with the ever-present probability that the wrong one will be hit.

It will be remembered that, in 1931, a proposal that the R.A.F. should maintain the whole security of the Border was carefully considered, and then for very good reasons finally dropped. Great strides have been made in the intervening years, and in the next Waziristan campaign there is no doubt that much greater use of air support will be made. Yet the whole idea of this soulless bombing from the Air is the very antithesis of the eventual pacification which we wish to produce, and its intensification will only result in more savage reprisals and more murders of innocent British officers on the Bannu road.

Increased air offensives will certainly exasperate the Mahsud: they will never intimidate him.

(6) The greatest complications in our dealings with the tribesmen of Waziristan are matters of International Policy, and are bound up with our attitude towards Afghanistan, where the present Government is friendly and co-operative.

As the years pass, and the chance of any return of Amanullah grows less and less, the Government of Zahir Shah becomes more stable and the likelihood of a major upheaval more remote. Nevertheless, the Afghan Government has its own tribal problems and has never yet found itself able to control the whole country up to the Durand Line.

There is thus a No-man's-land on either side of the border which has become the happy landing-ground of all the worst outlaws, where men like the Faqir of Ipi take refuge when the rest of the country becomes too hot to hold them, and which has for them the supreme merit of being practically inviolable unless both Afghans and British can take strong action simultaneously. Moreover, as we ourselves do not control any of that part of Waziristan lying west of a line drawn between Razmak and Wana—much of which is a second Kashmir, and an ideal site for pleasant and healthy cantonments—there can be no check whatever on the passage of armed parties to and fro across the border in the case of Wazirs, and very little in the case of Mahsuds.

It is not intended here to do more than suggest that a forward move to the Durand Line has many attractive possibilities, that it would most probably lead to the peace of this part of the border and be welcomed by a friendly Afghan Government, and that the initial outlay would be more than compensated for in a very few years by the reduction of current expenditure in small expeditions.

However, this may be, the first essential is clearly to get at the heart and core of Waziristan, the only thing when all's said and done that really matters—the Mahsud. How can this be done?

If it be agreed that the foregoing observations are more or less correct in substance—and on these points it may be strongly suspected that "Spingirai," whose letter appears in the October number of the *Journal*, has a very much more intimate knowledge than most—we can take it that while no economic return can be expected from Waziristan now or for a very long time to come, there are on the other hand certain characteristics inherent in the Mahsud which might be turned to good account.

There are two suggestions, neither of which has perhaps yet been fully pursued:—

- (a) The Mahsud is pastoral, and sheep appear to thrive in Waziristan, whereas cattle do not. Could we not give him more sheep, and improve the breed by assistance from Government stock? The expense of such a move would not be great, and whether the experiment succeeded or failed it would be a friendly gesture which the Mahsud would appreciate. If successful, it would be extended later to the whole of Waziristan.
- (b) The Mahsud is first and foremost a fighting man, and he would welcome further enlistment. This experiment has been tried in various Units, Regular and Irregular, and before the War of 1914—18 Mahsuds were enlisted in the Baluchi Battalions and did very well indeed in France. They can do well again.

It cannot be said that they have always proved good peace-time soldiers, but this has generally been caused by bad handling, and may have been due very largely to trouble over promotions or other jealousies. They are never going to be easy to deal with, but it is contended that they are well worth the extra trouble, and that, provided they are properly handled—particularly in the initial stages—they can be turned into the finest possible troops.

Mahsuds are divided into three main tribes: Bahlolzai, Manzai, and Shaman Khel. It may be difficult to persuade a Bahlolzai to take orders from a Shaman Khel, or *vice versa*, but with tact and perseverance it can be done. The alternative is to keep them in separate units, but this would appear to be a mistake, as it would merely serve to develop their clannishness.

In any case, the success or failure of the Unit would depend almost entirely on the British officers, who should be carefully selected from the Scouts and Frontier Militias. It is understood that the Mahsuds now in service are doing excellent work, and, if this is so, there seems to be very good reason for the opening of further enlistment to them.

The above suggestions may not be exhaustive, and to some extent they are not even new. Nevertheless, where all the more grandiose schemes have failed, they might with perseverance form the beginnings of a better understanding which is the first essential if the Waziristan tribes are ever to be brought into closer contact with civilisation.

"SOUTHERN ENGLAND" AND ITS FLYING BOMBS

BY "EX-THAKUR"

THE FLYING Bombs made their first appearance over Southern England during the night of June 12/13th, 1944. Very few came over that night, but the next day rumours were in inverse ratio to those numbers. The most popular theory was that some fell disease had suddenly stricken the Royal Air Force, which had spent the night staggering home with severe engine trouble, and emitting bright flames from some uncertain part of its anatomy while flying very low. Another theory was that the Hun was putting up some enormous bluff by using brilliantly illuminated aircraft, which had a vestige of truth in it.

Civil Defence had been warned beforehand that something new was to be expected, and had been given, under the seal of secrecy, a very reasonably accurate description of what it was. Telephone conversations next day were therefore largely on the lines of "Did you see IT last night?"

For a long time varying theories were rife, at least among the general public, as to how it was propelled and controlled, rocket propulsion and wireless control having many backers. In fact, propulsion was by an extremely noisy jet mechanism, giving some 45 loud explosions to the second, and control by a system of gyroscopes and compressed air, as shown in the July number of this *Journal*. Wireless did not enter into the control at all, but about 3 per cent. of the bombs were fitted with a small transmitting set, to allow the senders to assess where it fell by means of radio direction finders.

The noise had to be heard (and felt) to be believed. It has been compared to that of a motor cycle engine, and that is perhaps the nearest known noise, though hard luck on motor cycles. When one passed low over a house (as frequently happened in the case of my own) the explosions caused the whole house to quiver, and not even a spiral spring mattress could damp out the vibrations. The normal operating height was about 2,000 feet, but some certainly came much lower.

After the first night there was a lull of some 48 hours, but on the night of June 15/16th the attack commenced in earnest and continued, with a few lulls, until August 30th, when our forces in Normandy deprived the Hun of his launching sites. Those seventy-seven days put a very considerable strain on the inhabitants of "Southern England", and particularly on those of West Kent and East Sussex. The target, of course, was London, but it was obvious that, so far as possible, the bombs must be prevented from reaching the built-up area, and Southern England had to receive the results of the efforts to that end.

The main defences consisted of fighter aircraft and A.A. guns, light and heavy, and by the time the real attack opened many Bofors and lighter guns were in position and a most amazing show

of fireworks was observed, completely eclipsing the Crystal Palace at its best. It was even rumoured that some of our Allies brought revolvers into action! Unfortunately the results were not on the same scale as the display, and they remained poor as long as the guns were distributed in penny packets along the lanes by which the bombs travelled.

The guns also badly cramped the style of the fighters, which had to haul off just when they were hoping for a kill, and they plastered the countryside with bits and pieces of varying sizes, to the distress of the farmers. Until the guns moved to the coast the fighters claimed by far the greater share of the victims shot down, though with a highly organised barrage firing (mostly) out to sea the pendulum swung the other way.

There was a healthy rivalry between the guns and the fighters on the subject of kills, and I had one busy afternoon trying to get evidence as to how a bomb which had damaged my own house, among others, had been shot down. I was rung up in my A.R.P. office by a harassed Artillery Intelligence Officer on the coast, whom I assured that I had, with my own eyes, while feeding the chickens, seen it shot down by a bunch of fighters. Not even the circumstantial evidence of my occupation satisfied him, and he explained that an Extremely Big A.A. Noise had been watching the shoot, and persisted in claiming it as his bird. I stuck to my guns, but so did the E.B.A.A.N., and the Intelligence Officer was soon on the line again asking, among other things, what sort of fighter was involved, and any other particulars in support of my statement.

So I had to get into my car and proceed to the spot above which the firing had taken place, where I was lucky enough to find some agricultural workers who had taken cover in a ditch at the time. Even more fortunate was the fact that one of them was a member of the Air Training Corps. They not only confirmed the slaughter of "my" bomb by fighters, but said that a second bomb which fell close to them at the same time had been shot down by a Tempest. I was, however, able to offer the Gunners a third which had been heard, also at the same time, streaking up into the stratosphere, possibly as a result of a hit over the coast. I heard no more, so suppose that the Great One was content.

What were the sensations of those with a worm's-eye view of the efforts to destroy the "doodlebugs" before they could reach a really built up area? Very mixed, and depending almost entirely on the position of the worm relative to the line of flight. If he was to one flank he developed the mentality of the soccer fan at a Cup Final, cheering on the fighters and exulting loudly and shouting congratulatory remarks when the target was hit and started to plunge erratically to the earth (someone else's).

But a very different frame of mind became evident when the said target was seen and heard approaching in a bee line for the worm's own house, with from six to eight fighters (Spitfires, Tempests, Mustangs and the odd jet-propelled) close on its tail, and taking it in turns to have a crack at it. On such occasions, and I speak from personal experience on several occasions, the slogan was "For Heaven's sake miss!", while the worm took what

cover he might behind an apple tree or in a ditch. I am thankful to say that my own prayers to that effect were invariably answered, and the bump came further along the route in more open country.

For when they did come down they did a lot of damage. The war head contained some 2,000 lbs. of H.E., and damage to roofs, ceilings and windows, not to mention the frame of any door which was shut, might be expected up to at least half a mile from the crater. Large shop windows were susceptible at much longer ranges, but leaded casements stood the strain pretty well. Even in rural areas as many as 350 houses have suffered to some extent from one bomb, and some were unfortunate enough to suffer three times from successive bombs, sometimes the day after first-aid repairs had been effected.

A direct hit meant complete demolition, with little recognisable among the mass of débris. Near misses could be little less harmful, and I saw one farm house, in a tree close to which a "glider" had exploded after being hit by A.A. fire on the coast. The house had just sat down. Fortunately the occupants were in the habit of sleeping in the cellar and escaped untouched.

Many bombs, of course, landed in the fields. They could be relied on to destroy an acre of crops, or up to two in the case of hops, and even then the farmer's troubles were not over, for when he went to reap the remainder he was in continual difficulties from the smaller fragments, bits of wire and so on, which did much damage to his machine.

Casualties, fortunately, were on a very light scale in rural areas. It has been stated that in South Eastern England, excluding Greater London, it took 10 bombs to kill one person. In my own A.R.P. area it took 240 bombs to kill 11 people. Forty-four others had to be admitted to hospital. But the strain on the population must not be measured by the number of casualties. Every time the coastal barrage was heard, by day or by night, announcing the approach of another wave of bombs, everybody was subconsciously on the alert, except possibly when there was low cloud or mist and it was obvious that fighters could not operate.

Then the noise of the bombs which had got past the guns increased the tension, and few could resist the urge to go out and see on which lane they were approaching. I have already described one's feeling when on the direct line of advance. Over my own parish, of 14 square miles, 1,000 flying bombs passed, any one of which might have been shot down on us. Actually we only received 20.

Two hundred and forty fell in the 139 square miles for which I am responsible. This gives an average density of $1\frac{3}{4}$ to the square mile, but one parish worked out at 3.17 and two others at 2.69 and 2.34 respectively. It will be realised, in view of the widespread blast effect, that life in these parishes was not enviable, but one heard very few complaints, and most of those were made in the heat of the moment, while surveying a horrible mess. Most people realised that had the bombs been allowed to go on they would have caused far greater loss of life and damage to property in London, and accepted the risk with resignation.

THOUGHTS ON THE FUNCTIONS OF AIR LANDING TROOPS

By F. J. C. P.

THE late Major-General O. C. Wingate, talking of his Brigades of Deep Penetration, often said: "We are the Airborne Troops of the future." His argument was that the function of his troops, now universally known as the Chindits, was, to penetrate to the vitals of the enemy and there wreck havoc. Whether they reached their scene of activity by marching (as he did in 1943) or by air (as in 1944) did not affect in any way their true function.

Before letting loose one's thoughts on this subject, it is necessary to repeat the meaning of the term "Air Landing Troops." They are not Parachute Troops or glider borne troops, whose function is to drop in the rear of the enemy positions and carry out certain special tasks to facilitate the advance of the main attack. These troops may reasonably expect relief within a few days, and therefore have no heavy weapons or administrative organization on a big scale in their composition.

Air landing troops, on the other hand, present a very different picture. The term merely means troops carried to their scene of action in aircraft. Their composition is therefore only limited by the carrying capacity of the aircraft available, and no doubt in the future we shall see armoured formations lifted as readily as Infantry units are now. Within this limit, the composition of the Force must be dictated by the task they have to perform, and this leads one to consider the nature of these tasks.

Now it seems to me that the time has not yet come when a whole campaign can be fought and won by airlanded troops alone. It will come, but the time is not yet. They must therefore still be considered as a diversion to help on the main Armies, and consequently must operate in such a manner that they contain or destroy enemy troops greater in number or in importance than themselves. Their scene of action, therefore, lies in the enemy area where lines of communication can readily be cut, and where they can threaten or operate against centres vital to the enemy's campaign. (These centres may be of political, economic or military importance).

They should not be employed in the immediate rear of the enemy forward troops, for, as we shall see later, they take time to arrive, and the enemy would be able to divert portions of his nearby reserves to crush the diversion in its infancy without seriously affecting the main issue. This is the task of parachute troops, with their rapid rate of arrival, light equipment and elusiveness.

Let us consider some of the characteristics of an airlanded formation, so that its use can be defined more closely. To start with, what is its composition? It is, or can be, a force of literally all arms. An Infantry Division, especially one equipped on an

Animal-and-M.T. basis can be lifted *en bloc*, complete with its field, A.A. and A. Tk. artillery. Light tanks are also a feasibility. Stores present few problems, and it is only when we come to Corps and Army troops of large sizes and weights (medium artillery, heavy vehicles and tanks) that we are, at present, compelled to call a halt.

Next, what are the "mechanics" of landing? First, a landing area or, more probably, landing areas, must be selected which can be *swiftly* made into a landing strip for heavily loaded transport aircraft. This involves flatness, unobstructed approaches, alignment in accordance with the prevailing wind, and freedom from obstacles difficult to remove. In addition, gliders must be able to land in the vicinity without any preliminary work at all. The selection, therefore, is a vital task, which must be carried out without giving a hint of its object. Air photos, air reconnaissance, agents reports and possibly landings of specialists by parachute or light aircraft may be employed.

The selection made, the landing now is planned in detail. Who goes first? and how? The virtual certainty is that only gliders or light aircraft will be able to land on the site in its unprepared state, and that dictates the composition of the first flight-engineers, with graders and bulldozers, in gliders, plus infantry to protect and assist the working party. Also the R.A.F. must be represented on the ground, and signals, in order to decide when aircraft can use the strip being prepared, and to carry out the vital and complicated control of take-offs and landings.

As soon as the strip is ready, the transport aircraft can fly in, but a one-way strip, probably without adequate turning space and a return track, is limited in its capacity. Particularly is this so in the case where the dust on the strip will be stirred up in dense clouds by the aircrew and temporarily reduce visibility to nil. However, it is only a matter of time before infantry, field, anti-aircraft and anti-tank guns can all arrive. Fighter aircraft can arrive too, and a force of all arms is in being and ready for action in the heart of enemy territory.

Two assumptions have been made so far. One is absolute local air superiority for the duration of the landing. This is a *sine qua non*, particularly if any part of the fly-in is to take place in daylight. Secondly, freedom from enemy ground interference before adequate protective forces have arrived. This is not so difficult to achieve as might be thought, provided the landing site is well selected. It should be in an area either where no large mobile enemy forces are readily accessible, or in one where the natural obstacles between it and the enemy force will prevent or delay the enemy's early arrival. The element of surprise inherent in such an operation works in its favour, and a study of the time and space problem from the enemy point of view will indicate clearly the suitability or otherwise of the site.

One final characteristic of the air landed force. It can operate, by means of its air L. of C., for a considerable period and over a considerable area. The time can be measured in months.

and will vary according to the climate, terrain and intensity of operations. But they cannot go on for ever. Relief is essential, either by exchange with fresh air landed troops, or better still, by the arrival of the main ground forces.

What, therefore, can we deduce about their tactical or strategical use? The ideal, perhaps, is for a strong force to be placed in an area whence it could strike against two or more centres vital to the enemy for one reason or another. This should cause the enemy commander either to tie up considerable forces to guard against several contingencies, or to deflect a force to destroy the intruders. A combination of the two is probable, and the commander of the air landed troops is then faced with a problem which has several attractive features.

If the enemy counter-attack force is weak, he can ambush it *en route*, and offer battle on ground of his own choosing in order to destroy it. If it is too powerful for him, once his force is landed, he can if he wishes evacuate his landing ground and operate in smaller detachments, concentrating against any target he selects—what time the counter-attack force must keep concentrated (and slow moving) or risk destruction piecemeal. It may be that he can elect to make a "fortress" of his landing ground, and sally out from it to destroy small enemy forces or commit mayhem upon enemy H.Q's. and vital points.

At the same time that this is going on, the main land armies must assume the offensive. The whole operation must be an example of team work. If one fails to make its presence urgently felt by the enemy, powerful reserves become available for action against the other. The object should be to place the enemy commander in a position where he is in doubt not only *when* to throw in his reserves, but against *which* of two serious threats. The one in his rear areas may prey upon his mind, but his problem is complicated out of all proportion if he has to watch a really powerful offensive (not merely an attack) against his forward positions. To counter-attack both weakly courts disaster; to counter-attack one transforms the other "threat" into an actuality which may well cause the total collapse of his forces.

Finally, one principle of war should not be forgotten: economy of force. The air landed troops will, or should, be operating in an area where the opposition will be largely composed of L. of C. troops. Their fighting value will be below that of the air landed infantry, and their supplies of weapons inferior to those which can be deployed against them. Therefore, a careful estimate should be made of the tasks facing the air landed force, and its size and composition should not exceed by a man the numbers, with reserves, necessary for the task. In this connection, the estimated time of relief of the force by the oncoming main armies will have a very important bearing.

If the foregoing ideas are broadly accepted, it would seem that the vast limits of South East Asia Command must include several areas suitable for such operations. Of all Commands, it is the most strikingly "Combined Operational", and as regards the land fighting, *team work* between the R.A.F. and an air landed force on one side, and the main land armies on the other, should offer promising hopes of rapid and decisive action.

WATER SUPPLIES IN THE FIELD

BY LIEUT.-COLONEL F. L. ROBERTS, M.B.E.

"If you want to get sick in a hurry, start drinking innocent-looking, crystal-clear, untreated jungle water."

—From A. I. T. M., No. 23, December, 1943.

ONE ITEM in the equipment used in our army is open to criticism. That is the equipment used for the provision, issue and holding of water in the Field.

In North Africa and Eritrea one of the principal administrative problems was the provision of adequate supplies of water. Now that we have finished with the deserts of Africa there is a natural tendency to forget the severe water rationing which so frequently had to be imposed on troops.

Here our eyes naturally turn to the operational areas of the South-East Asia Command—Burma, onwards through Malaya, Siam and China and on to Japan. Wherever we fight, our men, hospitals, animals and machines need water—good, clear and *pure* water. Rainfall in the South-East Asia theatre may be heavy, but consideration of the factors involved shows that the subject merits serious thought.

Consider drinking water. In oriental countries there is ever present the danger of water being infected by and infested with germs, *bacilli* and *animalculi*, every one of which forms a serious threat to health. There is far less danger from water-borne diseases in desert lands than in countries where water sources abound.

In Africa the aim was to provide each man with two gallons per diem, this being considered sufficient for cooking, drinking, and, if any remained, ablutions. In practice, usually not more than one gallon per man per day was available.

Climatically, South-East Asia is far more humid than North Africa, and there is in East Asia an additional strain on the human body by reason of the fact that there is no cold weather. Thus to keep our troops fit, we should aim at a minimum issue of three gallons per head. Taking a Division at about 20,000 men, this would call for a total requirement of 60,000 gallons per day for drinking and cooking only. If three gallons be thought excessive, we should ensure a ration of at least two gallons.

Take hospitals. Our Field Ambulances, C.C.S. and Field hospitals need large quantities of water for medical purposes, for staffs, and for patients. A C.C.S., for instance, needs between 800 and 1,200 gallons daily; moreover, medical units and installations are organised so as to be able to subdivide into Advanced Dressing Stations and Light Sections. Each offshoot requires a greater proportion of water than it does while with its parent unit.

Transport is another heavy consumer. It may be thought that any kind of water will do for mules and motors, but that is not so, though extensive purification is not always as necessary as with water for human consumption. Mules are fussy animals; they will not always drink where one hopes they will; and they are apt to become debilitated if the water does not suit them—and an epidemic amongst mules is bound to have repercussions on operations when troops have to depend on them for transport.

Motors, too, must have clean water for radiators. Chalky or muddy water in radiators leads to serious engine trouble, which react adversely on fighting efficiency.

Purification of water.—Water in oriental countries usually carries the *bacilli* of the enteric group of diseases, of cholera, dysentery, etc. These *bacilli* are neutralised or destroyed by chlorination, best carried out at selected water points. For troops on patrol or detached roles sterilising tablets are issued.

Another danger in oriental water sources are *animalculi*, which exist in the shape of cysts, the *ovae* of worms and the *amoeba* of dysentery. Chlorine does not destroy these *animalculi*; filtration is the only means of removing them. This involves forcing the water through chalk and then passing it through a cloth or metal filter. Each army water truck and water trailer is fitted with a filter, the water usually being chlorinated after it has been pumped up, through the filter, into the water tank.

Sedimentation is another means of purification. Even though mud may not be poisonous, it is not good for the human body. Thus it is necessary to arrange for sedimentation of water, best done at recognised water points. For this purpose Engineer units are issued with collapsible canvas tanks holding up to 250 or 500 gallons.

Those, then, are the dangers and the means whereby they are overcome. In addition, strict water discipline is essential, to ensure that drinking water shall be drawn only from those sources at which it has been filtered and chlorinated.

Orders which are impracticable of obedience are useless. Men must therefore be provided with an adequate number of water points reasonably easy of access; they must be so sited that water vehicles do not have to spend an inordinate amount of time in transit to or from them, or wait for long times at overcrowded water points.

The modern 15 cwt. truck carries 220 gallons; battalions have one such truck on their strength. If each man in a battalion is allowed 3 gallons a day, the unit's vehicle has to deliver a full load not less than 12 times daily.

Experience in Arakan has proved beyond doubt that the L. of C. in rear of leading Divisions are liable to serious disruption by hostile patrols; road movement is usually restricted to daylight hours. Assuming 12 hours of daylight, a battalion's water-truck cannot afford to spend more than one hour on each round trip if it is to deliver water 12 times daily—and this one hour includes

time spent in drawing as well as in delivering. If the ration be two gallons per man per day, each truck will have to make eight trips.

Bearing other factors in mind, one hour per round trip is not a very generous allowance of time; it affords little opportunity for the driver's rest, or daily maintenance of the vehicle.

Thus, so long as large units have only one water-truck each, it is essential that each Divisional area must have several water points. Practical considerations must dictate the number of such points which can be developed and protected, but there should be not less than three in a Divisional area.

Water equipment includes (a) canvas tanks, (b) water trucks, (c) *pakhals*, and (d) filters.

(a) Engineer Field Companies have large folding canvas tanks, sufficient to erect reservoirs for sedimentation and storage at water points. Units, other than Sappers have a small pattern canvas tank known as "Diggies", holding about 50 gallons. Though useful for storage, they have the disadvantage that a unit has no transport allotted to carry its "diggies" when full of water. Thus, when a unit is ordered to move, the "diggies" have to be emptied, thus wasting the water collected. Not only is the water wasted, however, there is also the running time of the water-truck which brought up the water, and the time spent in sedimenting, filtering and chlorinating it.

Units therefore need some form of equipment to hold their water supplies while on the move, to do which I suggest that a unit's water reserve should be carried in *pakhals* capable of carrying one-third of the unit's daily consumption. This need not call for additional M.T., because *pakhals* can be clamped on to the running board of trucks and lorries—a method which was adapted in Africa and was efficacious. Moreover, now that we have the Jeep with us, a suitable type of bracket could be fixed either to the back or to one side of the vehicle, capable of taking one *pakhal*.

(b) *Water-trucks*.—Many officers feel that the present day water-truck is obsolete and should be allowed to fade out. Its disadvantages include: (i) if the chassis or engine requires workshop attention, the unit has no means of obtaining water until it is repaired; (ii) should the truck become a casualty, it is unlikely to be replaced for some time; a Division is supposed to have a reserve of two water-trucks. Two vehicles, *i.e.*, 440 gallons in reserve behind 20,000 men! (iii) Each truck has the filter—so that wherever the truck goes the filter goes too,—along the road, into the car park, or into the workshop; all those hours doing no filter-work when it might so profitably be preparing pure water at a water-point. (iv) Not every track will take a 15-cwt. truck, so that whenever a unit has to operate along narrow tracks, their water vehicle must be left behind.

May I suggest the following in place of the water-truck?

(a) Within units instal a type of light trailer, capable of being towed by a loaded Jeep or larger vehicle, or of being hauled

by a mule. Sufficient trailers should be supplied to carry one-third of the unit's daily water supply. Thus, with the trailers and the *pakhals* already mentioned, units would be able to hold and carry two-thirds of its daily ration.

(b) In addition to unit trailers, there should be a Divisional pool of vehicles for delivering water to large consumer units. This pool should consist of twenty-five 15-cwt. trucks, each with a 200-gallon galvanised-iron tank, fitted with one or two taps. If the truck becomes a casualty, the tank can be transferred to another truck—it is a simple matter to shift the wooden chocks which hold the G. I. tank in place. Alternatively, why not form Water-Tank Companies, each being allotted to a Corps and being capable of subdivision into sections, for sub-allotment to Divisions when occasion demands?

(c) *Pakhals*.—Is the *pakhal*, as at present manufactured, suited to modern conditions? Originally designed for carriage by mules, it does not follow that the same design makes it suitable for motors, especially the lighter type of vehicle such as the Jeep. The writer suggests that a smaller (6-gallon) type would be preferable. Two such *pakhals* would hold one-third of a day's water rations for one infantry rifle section or equivalent unit.

Moreover, the present pattern has its mouth placed in such a position that the maximum wastage of water is inevitable. This mouth is of such enormous dimensions that it can pour satisfactorily only into a receptacle the size of a basin. The Sepoy's water bottle has an orifice of about an inch in diameter. There should be some connection between the mouth of the *pakhal* and the water-bottle, but in twenty-four years I have never seen it. The aperture in the *pakhal* should be sited at one end of its uppermost edge; it should be designed after the fashion of the lip of an ewer, so that water can be poured out instead of being spilt as it is to-day.

(d) *Filters*.—Our water-pumping machinery is in the centralised control of Divisional Engineers. But I suggest that where the pumps are, there also should be the Division's filters. Units sent off on a detached role (they invariably have with them a detachment of Engineers) should be accompanied by a suitable proportion of pumps and filters. This centralised control over expensive filtration plant will enable regular overhaul and would also result in economic use of plant.

Finally, let me summarise the points put forward in this paper:

(i) We must be equipped to ensure that fighting troops and medical services receive an adequate daily supply of *pure* water.

(ii) We should aim at not less than three gallons of water per man per day.

(iii) The strictest water discipline must be enforced, so that the men may obey the orders; they must be provided with an adequate number of water points and water equipment.

(iv) Units must be capable of holding and carrying not less than one-third of their daily water ration. While on the move they should have *pakhals* fitted to 15-cwt. trucks and to Jeeps. The 50-gallon canvas "diggie" is of use only when a unit is static.

(v) The modern 15-cwt. water truck should be scrapped and replaced by light trailers, towable by Jeeps or hauled by mules.

(vi) Trailers in a unit should be able to carry one-third of the unit's daily water ration. Thus these trailers, plus the *pakhals*, will give a unit two-thirds of its daily ration.

(vii) Each Division should have a pool of 25 water-trucks, each carrying one 200-gallon G. I. tank fitted with a tap. If it is considered unnecessary to make this pool a permanent allotment to a Division, then Companies of G. I. tank trucks should be allotted to Corps for sub-allotment of Sections to Divisions when required.

(viii) The *pakhal* could with advantage be modernised by making it slightly smaller; and by providing it with a better-shaped pourer more suitably situated.

RECENT ADDITIONS TO THE LIBRARY

A VALUABLE addition to the library of the Institution is a copy of Sale's translation of the Holy Quran, which has been most generously presented by Miss A. E. French. Members wishing to borrow the volume are asked to take particular care of it, and to return it as soon as possible.

Captain R. W. Munro, of the Seaforth Highlanders, has been good enough to present a copy of "Lachlan MacQuarrie XVI of Ulva," which contains notes on some clansmen in India. Clan history is Captain Munro's hobby, and he has devoted much time in searching for traces of members of the clan in India.

"The Tide Turns" (Faber & Faber), by "Strategicus." A well-documented and interesting book giving the strategic background of the battles of Stalingrad, Alamein and Tunisia.

"In Him Was Light" (Oxford University Press). Brigadier F. L. Brayne, whose untiring campaign for rural uplift is known all over India, loves the Punjab villager—and the villager loves him. In this book he sets out to prove that true Christianity is the essence of rural uplift. To all who believe with him that our mission to India's millions of villagers lies in us helping to make their homes better and their lives happier this little volume will make a strong appeal.

"How to Win the Peace" (Hodder & Stoughton). Mr. C. J. Hambro, one of Norway's principal journalists and a former member of the League of Nations Council, writes: "Any highway to a better future must be paved with open speech and honest dealing." In this book he advances many practical suggestions as to how we are to proceed to attain an international order which, he feels, will assure future peace.

"Personal Leadership for Combat Officers" (Whittlesey House, McGraw-Hill Building, New York). Mr. Prentiss B. Reed, Junr., says that leadership lies in character and personality. Character is determined by one's fundamental motives in life, and personality is the impression one gives to others. The two combined are the substance of leadership.

The principles of leadership are universal, but some readers may feel that much of America's liberalism is stamp-

ed on this quotation:

<i>Boss?</i>	or	<i>Leader?</i>
Drives his men	..	Coaches them.
Depends on authority	..	Depends on goodwill.
Inspires fear	..	Inspires enthusiasm.
Says "I"	..	Says "WE".
Fixes blame for breakdown	..	Fixes Breakdowns.
Knows how it is done	..	Shows How.
Makes work a drudgery	..	Makes it a game.

A more succinct borrowing (incorporated, incidentally, in a U. S. Training Manual) is Kipling's recipe of six essential elements, expressed or implied, in a leader's order:

I keep six honest serving men
 (They taught me all I knew);
 Their names are What and Why and When
 And How and Where and Who.

The interest of the book lies in its collection of cardinal ingredients of successful leadership expressed in a fresh way.

"D' Day." (Thacker & Co.). John Gunther, an American newspaper man, has set down his personal experiences during an eleven-week tour of North Africa and the Near East at the time of the invasion of Italy. The book gives a detailed account of his reactions to the stupendous sights he witnessed during those crucial weeks, written in a restrained and extremely modest style. He is so modest that he tells the story of how he addressed an American naval officer on the Sicilian beaches as "General." "Hell," said the officer. "I'm an Admiral."

He extols Eisenhower's generalship, and describes the dramatic moments at his headquarters in Malta on the eve of the landings. Writing of the way the General spent the night before the invasion, he relates how Eisenhower went out to a point on the beach and waited in the moonlight. He fingered some lucky coins he always carried—one silver dollar, one five-guinea piece and one French franc—and murmured "God-Speed" as the 'planes whipped over. Next day, when it became known that the landings had taken the enemy un-awares, he was heard to mutter: "By golly, I don't understand it—to think we've done it again."

"The Position of Women" (Oxford Pamphlet). Mrs. L. N. Menon has condensed into this 32-page pamphlet everything that could be said about the position of women in India, their contribution to art and literature, their part in politics and public life and health and education. Students of Indian social problems will find it most useful.

"The Civil Defence of Malaya" (Hutchinson), by Sir George Maxwell. The British public was so embittered by the unexpected fall of Singapore that it sought every possible object on which to expend and relieve its feelings. In complete ignorance of the facts it abused indiscriminately the Civil servants, planters, European women, Malayas, and the entire civilian community, for what was, from beginning to end, a military disaster due to lack of military preparedness and adequate military forces. So declares this book, written by a committee over which Sir George Maxwell presided, from information received from people on the spot at the time, and published under the auspices of the Association of British Malaya.

"The British public," it is added, "has every reason to be ashamed of what it thought and said, but the Malayan public has every right to be proud of what it did." In something over 100 pages is set down just why the public may take such pride, and it constitutes an answer to many of the unfounded charges and ill-informed statements made during and immediately after the Malayan campaign. The justification which the committee sees in this work is, in its own words, that "unless the facts are recognised before the British return to Malaya, our reception may not be the one that is necessary for co-operation in laying the foundations of the Malaya of the future."

"Poland" (Macdonald & Co., London), by Edward E. Ligocki. Lack of understanding of the needs, aspirations and viewpoints of other countries nearly wrecked the last world peace conference, and we know that on the presence or absence of such understanding will largely depend whether or not the peoples at present united will draw together in co-operation or fall apart in suspicion and resentment—the ultimate result of which would be warfare once more.

Edward Ligocki has contributed towards fostering understanding by his book on the story and character of his own people, who were the first to feel the blow of blitzkrieg. It is not by any means a full picture, and in part the poet is in evidence. But he is a friendly guide, and if, as Shelley claimed, poets are the unacknowledged legislators of the world, we need their counsel in the rebuilding that is soon to begin.

"The Lampi" (Thacker Spink & Co., Calcutta), by Lieut.-Colonel G. P. Chapman. At the side of a road in Manipur stands a stone on which is engraved: "This road from Bishenpur to Lakhipur, a distance of 109 miles, was built between the dates 19th July and 21st September, 1942, by

Chapforce, because everybody who knew said that it was impossible." The road was built not by the engineers, but by gunners. It began as a mixture of dream and challenge to Colonel Chapman. The Naga labourers who worked under the control of British officers and men of the 82 A/T Regiment, R.A., led by Colonel Chapman, caught the white men's "fever"—the strange enthusiasm to drive a 'road' in a challenging time-limit through the jungle and over the mountains. They didn't understand why the white man had this fever, but it was infectious and they called the road the "Lampi."

This war has produced many achievements which are on a small scale when set against the gigantic backcloth of the world conflict, but which are current testimony of the virility of the British race and are in the true pattern of the work of great prisoners. This is one of them.

"Infantry Attacks." (The Infantry Journal, Washington.) By Erwin Rommel. In the effort to find out why they lost the first World War the Germans produced hundreds of books analysing their 1914—18 experiences. Among them were notes by a young company commander in a Wurtemberg mountain infantry battalion, Erwin Rommel, and published by him in 1937 when he had become a lieutenant-colonel and instructor in infantry tactics at Dresden Military Academy. He was still an unknown officer and this and another small handbook for platoon leaders brought very little attention. But five years later Rommel was directing the Afrika Corps so successfully that the publicity spotlight from Berlin was turned upon him to the exclusion of almost all other Axis commanders, and his name became known throughout the world.

His books now ran through many editions in Germany. There were few to be found in Allied countries, but the Americans missed no opportunity to learn from an enemy who was at war again two years before they were. Colonel Gustave E. Kilde made a translation for the U. S. Command and General Staff School. This is it—a series of combat narratives of the unit Rommel led against the French, Rumanians, Russians, and Italians, followed in each case by observations under which Rommel sums up his reactions. They show him to have been an aggressive and versatile leader of a small unit (he began as a company commander at the age of 23), and many of his general tactical lessons are valid to-day.

The main theme emphasises the importance of the basic principles of training, security, prior planning, and initiative and hard work by all junior commanders. Rommel had a highly developed capacity for using terrain. He trained his

ment to take cover whenever possible in movement and to dig in whenever they stopped. To this he gives repeated emphasis. "With the increased power of modern weapons increased dispersion and digging of foxholes is vital to the safety of any unit. Begin digging in before the first enemy bombardment. Too much spadework is better than too little. Sweat saves blood." (P. 20.) And again: "The solidly frozen ground made our light tools almost useless. Even in attack the spade is as important as the rifle." (P. 61.)

Rommel was tireless in reconnaissance and attributed many of his successes to the fact that he possessed better information about the enemy than they did about him. Information was shared with junior officers, N.C.O.s, and even privates. Into every battle plan Rommel tried to introduce deception and surprise. He sought the weakest element in the enemy position and his plans were shaped to exploit that weakness and confuse his adversaries. He used his machine-guns and hand grenades in 1916-1918 with the same skill as his 88s in 1941-42. It was late in 1917, before a two-minute dislocation in a synchronised movement of assault troops forced him angrily to record, "It was the first attack since the beginning of the war in which I had failed."

His last great failure came a quarter of a century later: at Alamein, after he was outgeneraled and outfought. Now he is dead. But in this translation readers will find many interesting parallels with the methods which brought him so near to a success that would have made the World-war picture very different from the Reality of 1945.

LETTERS TO THE EDITOR

THE WEST AFRICAN'S ENGLISH

General Sir George Giffard's Comment

To The Editor of the U.S.I. "Journal"

DEAR SIR,

I have been much interested in the excellent article by Major F. C. Carnell, entitled: "The West African's English." Major Carnell's statement that the "momentous step of introducing English as a *lingua franca* among West African troops was only taken during the present war" is, however, not accurate.

The history of the introduction of English as the *lingua franca* of West African troops goes back to the end of the last war, when I was appointed G.S.O. II to the Inspector-General, Royal West African Frontier Force in 1920.

Service during the last war with the King's African Rifles in German East Africa had convinced me that the introduction of English as the *lingua franca* of African Colonial Forces was essential if misunderstanding and consequent loss of life was to be avoided in the event of another Great War. During the operations against the Germans, I had seen many avoidable casualties caused by the lack of understanding between the African soldier and his leaders, and I determined that, if I ever had the opportunity, I would press for the introduction of English as the *lingua franca*.

I proposed this step to my Inspector-General, and it was duly discussed at meetings in West Africa during the winter of 1920/1921, but feeling was then extremely strong among many senior officers against the teaching of English on the grounds that it would spoil the fighting efficiency of the soldier to educate him. My attempt to introduce English was, therefore, defeated.

I determined that if ever I was in a position of authority in which I could make English the *lingua franca* of the African Forces, I would introduce its teaching at once. My real opportunity came when I was appointed Inspector-General of the African Colonial Forces in 1936, and I at once examined the problem of teaching English to African soldiers.

The first question to tackle was the system upon which we should work and, after much consultation with Education Authorities in the Colonial Service, I decided to adopt the system set out in the excellent book which was produced for the African Colonial Forces in 1939. For financial and other reasons, it took some time to get teaching of English started and, in fact, very little was done until I was appointed to the new West African Command in 1940, when I was able really to make a proper drive to get English taught.

Even then there was a good deal of passive resistance to the idea by some of the officers who had served some years with the African Colonial Forces, and had learnt the African's language. The resistance to the idea has been much more pronounced in East Africa than in West Africa, and progress there has consequently been much slower. The European leader must always learn the language of his troops.

My original ambition in peace had been to do away with "pidgin" English and to have proper, or as the West African calls it, "London" English taught. Unfortunately, the stress of war compelled me to make shift with such schoolmasters and teachers as I could obtain, and the teaching was far from what it should have been. We did, however, succeed in teaching large numbers of men a smattering of English, and there is no doubt whatever that very great strides have been made during the past four years.

As an example, I may say that in 1939 I could not speak to a single Non-Commissioned Officer in the Nigeria Regiment in English, whereas, only two days ago I was able to talk to all Nigerian Non-Commissioned Officers in one of the Brigades that I inspected. There is no doubt that the more work that is done in teaching English in the Army, the better will it be for the African soldier when he returns to civil life.

I owed a great deal to the generous help given me by the Colonial Governors in starting teaching of English to the troops.

Yours sincerely,

C. J. GIFFARD,

General.

New Delhi.

November 6, 1944.

C-in-Chief 11th Army Group.

THE BURMA—YUNNAN RAILWAY

To The Editor of the U.S.I. "Journal"

DEAR SIR,

I always read the *U.S.I. Journal* with keen interest, the April 1944 number even more keenly than usual, as it contained Colonel Christian's article, "Burma Roads Past and Present." Your readers may be interested to know that the General Davies mentioned therein is still going strong, and, being a close friend, I sent him the issue to read. He replied:

"I have read Christian's article with great interest. He has certainly taken great trouble, and has written an account of the communications of Burma from the historical point of view, and also from the present-day angle, which I don't think one would find anywhere else.

"He has, however, made one slight mistake in saying that the final survey of the Yunnan Railway was lost when Watts Jones was murdered, for Watts Jones and I both brought our work back to England after the first year's travel."

Yours faithfully,

JOHN F. S. D. COLERIDGE,

General.

Haslem.

Lieut.-Colonel Christian writes:

"It was with particular pleasure that I learn that the Major Davies (now Major-General H. R. Davies), who made several remarkable journeys and surveys of Yunnan Province during the years 1894—1900 is still going strong.

"I have always considered that his work in the Yunnan Province of China was deserving of the highest praise and considerable more recognition than it has received. It was carried out when the Province was virtually unprovided with roads, and while still hazardous for the European traveller.

"General Davies' two-volume *Yunnan, the Link Between India and the Yangtze* is a classic of exploration and survey, involving nearly 6,000 miles of travel by mule and afoot over a period of six years. This period covered a region of exceedingly difficult terrain which, if not exactly the 'roof of the world' is at least up in the attic.

"Inasmuch as I do not have my notes with me in Ceylon, I am now unable to cite my source for the statement that the final surveys of the Yunnan Railway were lost when Watts Jones was murdered. I am pleased to learn from General Davies that they were not lost, but were taken to England, and I suggest that they may with profit be consulted by the engineers who are studying the problems of Burma-China transport now that the Japs are on the way out."

FOR THOSE GOING HOME

To The Editor of the U.S.I. "Journal"

DEAR SIR,

Sir Dashwood Strettell sent some excellent tips for those about to go Home. Here are a few more hints. For the ship, washing soap and safety pins for the *dhobi* business, and pyrethrum or some other strong insecticide for the cabin, and plenty of books to read.

Luggage must be strong enough to be dropped from an aeroplane without a parachute. Also steel straps of wiring, plus cord. Name and address must be clearly painted on several sides. Next time I feel inclined to bring straps or webbing to help carry luggage.

A large convoy proceeding on its lawful occasions is a noble and inspiring sight—the "might and majesty" of Britain's sea power—but the dispersion of the thousands of people spued out of the great ships is a big job, and a railway map is extremely useful. None are obtainable locally. The possession of one enables the passenger to make a quick get-away from a strange port on whatever train goes in the right direction.

Yours faithfully,

F. L. BRAYNE,

Brigadier.

Norfolk.

SALUTING

To The Editor of the U. S. I. "Journal"

Dear Sir,

May I draw attention to a confusion of thought which is prevalent in the minds of many officers about saluting and which results in defective training.

A unit's standard of saluting is frequently regarded as *the* criterion of its worth, both in peacetime and in battle. This habit of thought is exemplified in peace stations by numerous notices and orders urging an improvement in saluting and affirming that units will be judged by their saluting. Moreover, in operational areas there is an insistence during even the shortest break that the men should be practised in saluting.

Originating in the belief that saluting is *the* criterion of a unit's worth is the view held by some officers that by improving a unit's saluting they are improving its worth. Consequently, saluting is given an exaggerated importance in the curriculum, and time that might well be spent on more practical and warlike training is devoted to saluting and the accompanying drill.

There are two fallacies in this sequence of thought. First, a unit's standard of saluting is one of the criteria of its worth, not the criterion. Secondly, improvement in saluting does not necessarily mean improvement in allround worth. The correct sequence of thought should be: Good saluting is one of the "symptoms" of a well-disciplined unit—but the presence of good saluting does not automatically mean the presence of good discipline.

Cultivate good discipline, and good saluting, which implies willingness as well as smartness, should, given elementary mechanical instruction, necessarily follow. It is only fair to add that practice in saluting may form part of the inculcation of good discipline, but let it be the means and not the end.

Yours faithfully,

"WALDEN."

Clement Town.

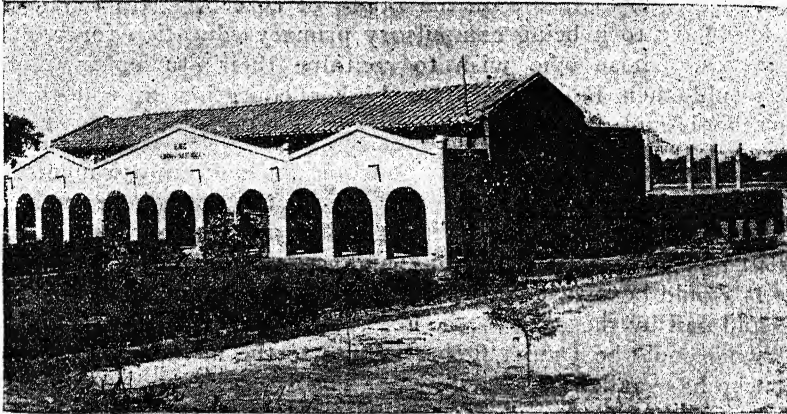
[Our correspondent raises an interesting point, but whether good saluting follows good discipline or *vice versa*, the fact is that good saluting breeds smartness and, as our American friends would say, "pride in one's outfit." Slackness in saluting reveals slackness in training—and in this connection many officers will agree that bad saluting is not confined to Other Ranks.—Ed., U. S. I. "Journal."]

A REGIMENTAL GUEST HOUSE

To The Editor of the U.S.I. "Journal"

Dear Sir,

You mentioned a regimental guest house in a previous issue. Here are some details of one we established in our Centre two years ago. It has recently been enlarged, and there are now three rooms for male relatives of I.O.Rs, one for ladies (*purdah*) and another for V.C.O.s and their visitors.



All the rooms are supplied with charpoys, and food is provided free from unit cookhouses. The usual period of stay is twentyfour hours, but in special cases, *i.e.*, where problems affecting pay and pensions have to be settled, this time limit is extended.

Visitors are seen twice daily by the Subedar-Major and the Welfare Officer, who attend to their requirements. Those who can read are allowed to use the library, whilst ex-soldiers are permitted to use the Regimental canteens and Institutes.

An old soldier is Guest Room Orderly, and he is responsible for the general cleanliness, etc., of the building.

The average number of guests using the house every month is 130, and they all express their appreciation and thanks for the amenity. The total cost of the building and furnishing was Rs. 5,560.

Yours sincerely,

A. N. M. WATKINS,

Colonel, R.I.A.S.C.

Ferozepore.

WAR MEMORIALS

To The Editor of the U.S.I. "Journal"

Dear Sir,

Your editorial notes on War Memorials in the last issue of the *Journal* are to the point, and in regard to education reinforce the suggestions made by Major J. R. H. Orr in an earlier issue. The scheme propounded by the latter contributor, however, can only work if it is directed from the centre on an All-India basis, with an equal representation of Civil and Military Officers on the Board of Directors, a necessary corollary to it being compulsory primary education for both sexes. Those who wish to continue their studies further would then be selected for higher education in endowed schools and universities.

Another direction in which we might look for war memorials concerns social uplift—the most important sphere of the regeneration of India. With it will come a higher standard of living, communal harmony, and a sense to live and let live. It would be a vast undertaking, and would be opposed tooth and nail by the more orthodox sections of the people, but what could be a more fitting tribute to the memory of those who have fallen?

Side by side with education and social uplift should come rural uplift, for the peasant is the backbone of this country, and is at the same time the most backward of its people. Consolidation of holdings, farming co-operatively, well-laid-out villages are among the things crying for attention. Each of these subjects is closely inter-related, and without a combined effort it will not be possible to raise the general standard of living.

Lack of funds may be said to be the main drawback, and the vast sums of money which will be needed may have to be found to a great extent by voluntary contributions. Many men in this country have become rich through this war; there is a large amount of money lying idle in the vaults of banks, buried in private houses, tied up in dirty bits of cloth around the waists of obese *bambas*. It is only right that those who, in addition to having been spared the horrors of war, have enriched themselves out of it, should be persuaded to give generously towards a cause which aims at creating a better and united India.

Quetta.

Yours faithfully,
H. I. AHMAD,
Major.

BASIC TRAINING AND MORALE

To The Editor of the U.S.I. "Journal"

DEAR SIR,

I was standing in a Rest Camp near the Brahmaputra in December. With me was an officer of an allied nation. Down in the road in front of us was a heterogenous collection of Indian soldiers, nearly all non-combatants or men of technical units who were trying to get on an already over-loaded lorry. The scene was not one to evoke admiration.

Our ally turned to me and said, "Say, is the morale of these Indian troops good?"

I have had several times to explain away cases of this sort, but it does strike me that it is wrong to have to do so. Cannot we eliminate the necessity by a general raising of the standard of turnout and discipline all round?

Four other reasons have impelled me to write this letter. They are:

(a) The shocking exhibitions I have seen at railway stations and in bazaars all over India.

(b) The indifferent attitude towards this state of affairs displayed by Indian Army Officers, who accept it as a matter of course.

(c) The appalling advertisement for the Indian Army it will be when shortly our forces of occupation enter enemy-occupied or enemy territory with a host of unsoldierly personnel in their train.

(d) The great trouble taken by at least one British Brigade whom I have had the pleasure of visiting, to explain the difference between the appearance of Indian non-combatants and technicians and that of the fighting soldiers.

Non-combatants and technicians are essential to our well-being. Fitters, cooks, watercarriers, butchers, barbers, sweepers, all have their job to do and do it well. The fact is that 95 per cent. of these men are respectable, decent, hardworking men who, if taught and encouraged, would make their turnout and bearing a credit to the King's uniform.

The main faults to be dealt with are:

1. Complete lack of correct original Basic training, *i.e.*, training in the simple drill movement and saluting.
2. The wide variation of style and colour of the uniform being worn. Lack of fitting, and in most cases a complete inability on the part of the wearer to put it on properly.
3. The lack, after five years of war, of provision (except in the cases of the I.A.C.) of a suitable headdress for Indian soldiers.
4. Unshavenness, the wearing of long unshaved and unkempt hair, untrimmed or "Charlie Chaplin" moustaches and untidy beards.

5. Dirty teeth.

How are we to raise the standard all round? At first sight it appears to be a formidable task, but on examination it looks to be a six-month job.

Basic Training.—Instruction in all Depots and Centres to be smartened up, local courses to be started all over India to teach basic training in drill and soldierliness. B.Os., V.C.Os., N.C.Os. to attend. A high standard to be attained. All men to do half to one hour drill a day.

Clothing.—Elimination in a given period of all variegated forms of dress, and the immediate increase in the establishment of tailors. Small units to be given special favourable treatment.

Headdress.—This deserves a special article. All that is available to Indian soldiers in addition to the steel helmet are: *the F.S. side cap K.D.*—A badly-made and sloppy article which does not suit the Indian soldier; *the Pagri.*—Fit only for ceremonial, most unsuitable for modern soldiering; *the Hat, Pith* (*available to certain classes only*) is an æsthetic atrocity; where is the green K.D. beret about which we have heard so much?

Hair.—An immediate increase in the scale of barbers is required. Strict prohibition of long, untidy hair, "soupstainers" or "Charlie Chaplin" moustaches. To those men who wish to wear hair in the Western style the issue of a brush is essential.

Teeth.—It is not understood why this important hygienic subject is so neglected. We should insist on compulsory inspection and treatment. We have mobile cinemas, canteens, workshops; why not a mobile dental section?

Is the writer asking for "Utopia"? Examine the suggestions and see what is required. Only that every man in the army be taught during a six-month period to perform the simple foot drill movements and saluting correctly, to put his clothes and hat on properly, to keep his hair short, moustache in order, and his teeth clean.

We are entering Burma in the near future. There are other countries to follow. Let us start these improvements *now*.

Yours faithfully,

"ISTUFEEN."

S.E.A.C.

NOTES BY THE SECRETARY

Honours to Members

The following honours have recently been conferred on members of the Institution:

G.C.B.—H. E. General Sir Claude Auchinleck, *G.C.I.E.*, *C.B.*, *C.S.I.*, *D.S.O.*, *O.B.E.*, *A.D.C.*, Commander-in-Chief, India.

K.C.B.—General H. Finnis, *C.B.*, *M.C.*, *I.A.*

C.B.—Major-General D. R. Duguid, *M.B.E.*, *A.M.I.E.E.*, *M.I.Mech.E.*, *R.E.M.E.*; Major-General C. M. P. Durnford, *C.I.E.*, *I.A.*; Major-General E. Wood, *C.I.E.*, *M.C.*, *I.A.*

C.S.I.—W. Christie, Esq., *C.I.E.*, *M.C.*, *J.P.*, *I.C.S.*, Chief Secretary, Government of the United Provinces.

K.C.I.E.—Lieut.-General H. B. D. Willcox, *C.B.*, *D.S.O.*, *M.C.*

C.I.E.—Brigadier D. McD. Fraser, *I.M.S.*; Major-General E. N. Goddard, *C.B.E.*, *M.V.O.*, *M.C.*; Major-General A. W. S. Mallaby, *O.B.E.*, *I.A.*; Major-General F. H. Skinner, *O.B.E.*, *I.A.*; Brigadier C. J. Weld, *M.C.*, *I.A.*

C.B.E.—Brigadier S. F. Irwin, *I.A.*

O.B.E.—Lieut.-Colonel H. B. Davies, *M.C.*, 13 Frontier Force Rifles; Brigadier Rao Bahadur Ghansar Singh, Kashmir State Forces; Colonel T. Hudson, *R.I.A.S.C.*; Lieut.-Colonel G. H. Nash, 16 Punjab Regiment; Lieut.-Colonel Sirdar Bakshish Singh Chimni, *R.I.A.S.C.*

M.B.E.—Captain S. R. Pocock, *M.C.*, Welch Regiment.

D.S.O.—Major-General A. W. W. Holworthy, *M.C.*; Major W. M. Mackay, 5 Mahratta Light Infantry; Lieut.-Colonel H. E. Cubitt Smith, *O.B.E.*, 12 Frontier Force Regiment.

Bar to M.C.—Major M. L. Cruickshank, *M.C.*, 2 Gurkha Rifles; Captain B. G. Hickey, *M.C.*, 5 Royal Gurkha Rifles.

M.C.—Major K. S. Katoch, 13 Frontier Force Regiment; Captain W. G. H. Smith, 10 Gurkha Rifles.

New Members

The following new members have been elected to membership of the Institution during the past three months. In addition, five Officers' Messes have become subscribing members during the same period:

Aird, Major W. T.,	*Beard, Lieut.-Colonel H. G.,
Appedaile, Lieut.-Colonel	Boparai, Major M. S., <i>M.B.E.</i> ,
E. G. S.,	Brookes, Captain F. E.,
Ashford, Lieut. R. L. M.,	Brij Narayan, Esq., <i>O.B.E.</i> ,
	<i>M.A.</i> ,
Baljit Singh, Captain,	*Bulbeck, Captain S. A.,
Barker, Major A.,	Chandra Shekhar, Captain,

* Life Members.

Chanan Singh, Lieut.,
Cowell, Major R. E.,

Mohd. Akbar, Lieut.,
Moorthy, Lieut. M. S. K.,
Morris, Major J. A.,

*d'Apice, Captain R. H. J.,
Duncan, Major J. R.,

Obroi, Captain M. L.

Findlay, Captain R.,
Fleming, Lieut.-Colonel W. E.,
O.B.E., M.C.,

Pakenham-Walsh, Major-
Genl. R. P., M.C.,

*Fowler, Major E. C. W.,

Plunkett, Lieut. N. W.,
Portman, Brigadier G. M. B.,
T.D., T.A., A.D.C.,

Garland, Lieut.-Colonel H. E.,

Purna, Captain K. R.,

Gibson, Major R. V.,
Green, Lieut.-Colonel A.,
Gurbachan Singh, Major,
Gurdial Singh, Captain,

Reeve, Lieut.-Colonel I. H.,

Halliley, Major A. A.,
Healy, 2/Lieut. T. P.,
Heenan, John L., Esq., I. P.,
Hughes, T. L., Esq., C.B.E.,

Sanzgiri, Major Vasant R.,
Spanton, Major E. J. C.,
Smith, Lieut.-Colonel F. O.,
*Stanage, Major R.,
Sury, Lieut. T. A.,

*Iftikhar Khan, Major M.,

Weston, Lieut. G. N.,
White, Lieut.-Colonel S. J.,

*Jadhav, Major C. K.,

Wicks, Major G. F., T.D.,

Khalid, Major G. M. A.,

Wilkinson, Captain C. F.,

*Latham, Captain W. D.,
Lifton, Captain W. J.,

Willis, Major M. T.,
Wright, Lieut.-Colonel H. O.,
Wylie, Lieut. A. L.,

McLintock, Lieut. J. D.,
Maneckji, Lieut. M. J. B.,

Young, Brigadier Desmond,
M. C.,

Gold Medal Essay Competition

The winning essay for the 1943/44 Competition which appears in this issue of the *Journal*, was contributed by Colonel J. F. R. Forman, 19th Hyderabad Regiment.

Entries for the 1944-45 Competition must reach the Secretary by June 30, 1945. The subject selected is:

"During the present war there have been certain limiting factors to the expansion of the Armed forces of India as regards personnel, equipment and armaments. Consider in relation to any one, or all three Services, in what manner they could in future best meet their peace-time commitments within the probable limitations of post-war finance, and at the same time form a sounder basis for expansion if the need should occur."

Full details of the rules governing the competition will be found elsewhere in this issue.

MacGregor Memorial Medal

Recommendation for the award of the MacGregor Memorial Medal should be submitted by May 1 of each year.

* Life Members.

The MacGregor Memorial Medal was founded in 1888 as a memorial to the late Major-General Sir Charles MacGregor, who founded the United Service Institution of India. It is awarded for the best military reconnaissance or journey of exploration of the year, which, during the war, may have been achieved during an escape from a Far Eastern enemy country into, for instance, India.

The awards are made in June, and are: (a) For officers, British or Indian, silver medal, and (b) for soldiers, British or Indian, a silver medal with Rs. 100 as gratuity. For especially valuable work, a gold medal may be awarded in place of one of the silver medals, whenever the administrators of the Fund deem it desirable. The Council may also award a special additional silver medal, without gratuity, to a soldier, for specially good work.

The award of the medals is made by His Excellency the Commander-in-Chief, India, as Vice-Patron, and the Council of the United Service Institution of India, who were appointed administrators of the Fund by the MacGregor Memorial Committee.

Eligibility for the award is open to: (a) Officers and other ranks of all forces of the British Commonwealth of Nations while serving with the India Establishment, or with South East Asia Command during the present War. (b) Officers and other ranks of the Royal Indian Navy, Indian Army, Indian Air Force and of the Indian States Forces, wherever serving. (The term "Indian Army" includes the Indian Auxiliary and Territorial Forces, Frontier Militia, Levies, Military Police and Military Corps under local governments.)

Personal risk to life during the reconnaissance or exploration is not a necessary qualification for the award of the medal: but, in the event of two journeys being of equal value, the man who has incurred the greater risk will be considered to have the greater claim to the award.

When the work of the year has either not been of sufficient value or notice of it has been received too late for consideration before the Council Meeting, the medal may be awarded for any reconnaissance during previous years considered by His Excellency the Commander-in-Chief in India to deserve it.

The medal may be worn in uniform by Indian soldiers on ceremonial parades, suspended round the neck by the ribbon issued with the medal. Replacements of the ribbon may be obtained on payment from the Secretary, United Service Institution of India, Simla.

Contributions to the Journal

Articles on matters of military, naval and air force interest are welcomed. They should not exceed 5,000 words in length, and preferably should run to 3,000 words. Contributions should be typewritten, double spacing, and in view of the paper shortage, may be typed on both sides, providing a moderately thick paper is used.

Contributors unable to submit articles already typed may send them in manuscript form, and arrangements will be made for them to be typed in Simla, the small charge being deducted from the contributor's fee. Payment is made on publication, at rates up to Rs. 150 according to the value of the contribution.

All articles dealing with military subjects are submitted to the authorities before publication, for security reasons. Contributions may, if the author desires, appear under a pseudonym; in such cases, the name of the author remains strictly confidential. The right to omit or amend any part of an article is reserved by the Executive Committee.

Library

An extensive library is available for members of the Institution at the headquarters in Simla. Books may be loaned to members resident in India, and those borrowing works in person must enter particulars in the book provided. Members stationed outside Simla may receive books on application; they will be sent post-free by registered parcel post, and must be returned within two months, or immediately on recall. No more than three volumes may be issued at any one time. Reference books and works marked "Confidential" may not be removed from the library.

Members wishing to retain a work for more than two months should notify the Secretary to that effect. If, after the expiration of three weeks from the date of issue a book is wanted by another member, it will be recalled. Should a book not be returned within fourteen days of the date of recall, it must be paid for, the cost of lost or defaced books being refunded by the member to whom they were issued. Such volumes which have become out of print will be valued by the Executive Committee, the member being required to pay the cost so fixed.

The issue of a book to any member under the above rules implies the latter's agreement with the regulations.

A catalogue of books in the library may be obtained on payment of Rs. 2/8 per copy, plus 13 annas postage.

Letters to the Editor

Correspondence is invited for inclusion in the *Journal* on subjects referred to in articles, or which are of interest to members of the Services in India. Letters should be as brief as possible, and should be sent to the Editor, United Service Institution of India *Journal*, Simla.

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The Journal

of the

United Service Institution of India

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GOLD MEDAL PRIZE ESSAY COMPETITION

The Council has selected the following subject for the Gold Medal Prize Essay Competition for 1945 :

"During the present war there have been certain limiting factors to the expansion of the Armed forces of India as regards personnel, equipment and armaments. Consider in relation to any one, or all three Services, in what manner they could in future best meet their peace-time commitments within the probable limitations of post-war finance, and at the same time form a sounder basis for expansion if the need should occur."

Entries are invited from all commissioned officers of His Majesty's Forces, from gazetted officers of the Civil Administration in India, and from officers of the Indian States Forces.

Essays, which should be typewritten (double spacing) and submitted in triplicate, must be received by the Secretary, United Service Institution of India, Simla, on or before June 30, 1945. In order that the anonymity of each candidate should be preserved, a motto should be written at the top of each entry. A sealed envelope, bearing on the outside the motto, and containing inside the name and address of the author of the essay, must accompany each entry.

Entries should not exceed fifteen pages (approx. 8,000 words) of the size and style of the Journal. Should any authority be quoted in the essay, the title of the work referred to should be given.

Three judges chosen by the Council will adjudicate. They may recommend a money award not exceeding Rs. 500, either in addition to, or in substitution of, the Gold Medal, and will submit their decision to the Council. The name of the successful candidate will be published in the October, 1945 issue of the Journal.

Copyright of all essays submitted will be reserved by the Council of the United Service Institution of India.

The Journal

of the

United Service Institution of India

Vol. LXXV

APRIL, 1945

No. 319

The views expressed in this Journal are in no sense official, and the opinions of contributors in their published articles are not necessarily those of the Council of the Institution.

MATTERS OF MOMENT

THE CONQUEST of Germany and the defeat of Japan will for years to come be an object lesson for students of military strategy. From the speedy destruction of the flower of German and Japanese armies, from the superb leadership of Generals who have put into practice a vast fund of military knowledge, and from the wonderful co-operative spirit between nations bent on destroying Nazism, there is being born a new chapter in civilisation. For five-and-a-half desolate years the peoples of the world have toiled and sweated and shed blood; terrible weapons of destruction have been invented and perfected; innocent women and children slaughtered, and two whole nations have revealed to the world a depth of depravity hitherto unparalleled in human history. Out of it all the new world now being fashioned must be worthy of the sacrifices of those who fought and died, and the responsibility is in the hands of those who are left. The sneers of cynics and the dangerous homage of lip service have wrecked many a good cause in the past, but it is to be devoutly hoped that the international organisation now being conceived as the guardian of treaties of peace will be the foundation of a Court of International conscience, whose judgement no nation will be able to afford, without peril, to ignore.

A New Era in Civilisation

It is said that our "unconditional-surrender" demand has inspired the Germans with a fanatical determination to go on fighting, and that it has prolonged the war. But though nothing must cause us to abandon that principle until the act of unconditional surrender has been made, that very term does not mean that the victorious United Nations are relieved of their obligations to humanity. We are not butchers of peoples, nor monsters out to enslave the weak; we are not Huns. Our behaviour as a civilised nation is governed by our customs, our natures. We are faithful people trying, as our Prime Minister has said, to raise from the bloody welter and confusion in which mankind is now plunged a structure of peace, of freedom, of justice and law, which shall bring to us and our children abiding peace. Such are our principles, and it is to vindicate them that we are in the fight.

Our Principles

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GERMANY'S propagandists continue to harp on the lie that the Armistice of 1918 was signed on the assumption that she would be given peace on the terms set out in President Wilson's famous Fourteen Points. The lie has been told so many times that it is often taken as fact,

**Those
"Fourteen
Points"**

and it is well to recall the truth. President Wilson enunciated his suggested terms of peace on January 8, 1918. Germany scorned them, believing that she could win the War. A few months later that belief was strengthened

by her ability to dictate to the Russians the historically harsh Treaty of Brest Litovsk—a treaty which, if it had been fulfilled, would have resulted in Russia losing 34 per cent. of her population, 89 per cent. of her coal mines, 54 per cent. of her industrial undertakings, 33 per cent. of her railways and an indemnity of £300,000,000. Nevertheless, in the autumn Germany's doom became obvious to Hindenburg and Ludendorff, both of whom were driven to the conclusion that the great military machine they controlled was about to collapse. From September 29, 1918, they insisted that their Government should come to terms with the Allies. On October 3 Hindenburg telegraphed to the Chancellor: "Each day the situation becomes one of more extreme gravity." The German Government then asked President Wilson to arrange for peace, and a month later the representatives of the Reich accepted every condition. Thus it is pure chicanery for Hitler's wireless dupes to assert that the German Government was misled. Their army was soundly beaten—and history is repeating itself. But on this occasion the terms are much more simple; they cover only two words.

** ** **

WE ARE privileged to publish in this issue two articles which merit close study both by professional soldiers and by those whose soldiering is limited to wartime. "AuspeX," whose writings in this *Journal* have shown him to be a fine student of the science of war, has compiled a paper which

**Two
Important
Articles**

for its vision, perception and profound military knowledge is outstanding. The development of air power has forced us to change our ideas of strategy and frontiers; devilish weapons such as the rocket bomb, long-range and faster aircraft, and the possibility that atomic power may replace fuel-derived power are all factors which may make the present war, with all its horrors and bloodshed, seem like a frontier incident. A Third World War *can* be avoided; world statesmen *can* guide countries and empires along the road of peace; but public and politician need to pay more attention to those leaders and military writers who in the past have been voices crying in the wilderness.

* * * *

The second article, written by a senior financial officer, sets out for study the framework of India's future defence organisation. The writer

**India's
Future
Defence
Force**

does not hesitate to call a spade a spade, and his views will command wide support, for many officers can vouch for the truth of them from their own personal experience. Mr. Brij Narayan's article is worthy of study by all who, in greater or smaller measure, will have the task of fashioning the

post-war defence organisation of India. His contribution may be taken as "local," affecting only India; the comments of "AuspeX" cover the outer defences and the probable future of war. Both reveal sound thought, valuable knowledge and vision.

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THIS WAR has proved that India's fighting men spring from all parts of the country, and realisation of that fact has led to the decision to expand considerably one of the finest military training institutions in India—the K.G.R.I.M. Schools. Hitherto, these schools were centred only in Jhelum, Jullundur and Ajmer—all of them in well-known pre-war recruiting areas. In the training of intelligence, knowledge and character of the young they have proved eminently successful, and recognition of their increased importance is afforded not only by the decision to erect three more K.G.R.I.M. schools in areas not covered by the existing establishments, but also by a change of title, for henceforth they are to be styled "colleges."

The K.G.R.I.M. Colleges

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When the schools were established students were all sons of V.C.O.s, N.C.O.s and men of the Indian Army, the original intention being to fit them for an Army career in the ranks up to that of V.C.O. Naturally, the high standard of training and education the students receive and the quality of the material make many of them excellent potential commissioned officers in the post-war Indian Army, and also in the R.I.N. and R.I.A.F., for both of the latter are to be allotted a number of additional vacancies in the Colleges. Thus personnel of the Indian armed forces all have an excellent opportunity for launching their sons on a fine career, and every encouragement is being given them to do so. The qualifying service for parents of students has been reduced to two years, so that practically every father in the Services is now eligible to send his son if he so desires. The fees he is called upon to pay are nominal—only Rs. 2 per mensem messing charges. Officers of the Indian Forces would be doing their men a service if they passed on details of this expansion programme to their men, for undoubtedly large numbers of them would be keenly interested.

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OF ALL the improvements in the life of the soldier fighting overseas in this war, perhaps the most striking is that of the postal services, for everyone must have noted the speed with which we now receive our airmails from Britain. A little over three years ago, when Japan entered the war, those wishing to airmail a letter Home by the then most speedy route had to pay Rs. 5 for the privilege, and as the letter travelled *via* the Pacific and across America,

Quicker Mails

it arrived home in between four and five weeks. The introduction of air-graphs, more and faster aeroplanes, and the opening of the Mediterranean, have now brought the delivery time near to that which prevailed before the war. This quicker delivery has, moreover, been achieved despite the enormously greater loads carried and handled, and the thanks of all ranks

in the Forces are due to the pilots, to the R.A.F. ground staffs, and last but by no means least to the members of the Indian Army Postal Service. All deserve praise for a difficult task well done.

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“WHEN I joined the Army as a Second Lieutenant in 1936 my pay was £3 10s. a week. My average Mess bill was £3 15s. and I just had to ask my parents for an allowance.” Thus spoke an officer to us a few days ago. His comment is not printed with the thought of discouraging an Army

**The
Post-war
Officer's
Pay**

career. Far be from us any such intention. Rather is it printed with the hope that official (British and Indian) concern for the civilian population will not overshadow its desire to improve the lot of the post-war officer, for with

his active service background he will be especially valuable to post-war armies. Indeed, one of the difficulties confronting those concerned with this problem is that of competition with the professions, for young men anxious for their future will naturally seize the best opportunities they have. In this problem, however, Governments have a fine opportunity to build up well-led armies, and at the same time to ensure some good material for their Civil services. The germ of the idea comes from—of all countries!—Germany, for before the last War officers were attracted to the German Army by the inducement of employment in a State service should they have to retire before qualifying for a reasonable pension. As with present officers in India, they had the advantage of purchasing everyday goods in military establishments, which in effect increased their income. (Incidentally, these officers' shops are such a boon to officers that their retention after the war will be most warmly appreciated.) Thus the rewards attaching to officers after the war may well be considerably augmented by “hidden emoluments,” the whole making an Army career as attractive from a financial, as well as from a patriotic angle, as any other profession.

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AN UNUSUAL aspect of Army life in pre-1914 Germany was, according to a writer in the *Army Quarterly*, the curious position of the Army *vis-a-vis* the tradespeople. “Very important was the fact,” said the writer, “that the tradespeople in a garrison town were in the power of the Army

**The
Cunning
German**

and not *vice versa*. If a tradesman tried to obtain excessive prices he was warned, and if he didn't come to heel he was put on a black list. . . . Only the more affluent regiments had messes as we understood them. The officers of others

fed at hotels and restaurants or at home, and only met socially as a unit in their Casino building on special occasions. . . . As the Army increased in size and new barracks had to be built to accommodate new units, the Ministry of War generally obtained the ground and buildings for nothing. A regiment quartered in a town always brought business to it. When, therefore, new barracks were required, various municipalities were approached with the question: ‘If a cavalry regiment is stationed in your town, how much are you prepared to spend on building barracks for it?’ Favourable replies were always received.” We should call it blackmail.

INDIA'S STRATEGICAL FUTURE *

BY "AUSPEX"

*War is a great affair of state,
The realm of life and death,
The road to safety or ruin,
A thing to be studied with extreme diligence.*

—SUN TZU (Circ. 500 B.C.)

THE future to which I look is only twenty years ahead. Without the help of scientists it is most difficult to write this paper, and this I emphasise at the outset.

This war has extended considerably the strategical frontiers of India, and it has clearly shown to my mind that in the East, India is the great axis about which the rim of any future war will be revolving. That rim is from New Zealand through the Carolines, the north coast of the Philippines, Hainan, the northern boundary of French Indo-China, Northern Burma, North India, the Hindu Kush, the Western Frontier of India or the Elburz Mountains of Persia, Northern Iraq, Syria, Cyprus, and the Western Desert of Egypt. Ceylon is the hub.

I place the western limits of India's strategical interest as far out as Egypt and Cyprus because from there air power can cover the open sea and the open deserts protecting Egypt, and thus hold the outposts of the approaches to East Africa and the Persian Gulf from the west, thereby preventing the establishment of air power from the west and north-west upon the land masses of Iraq, Arabia and East Africa.

There are two weak and vital parts of this rim. The first is the Philippine Islands, for which America may at any time cease to take responsibility for defence. A glance at the map will show that a powerful air force and active defence based on the Northern Philippines must press back into its ports any possible seaborne aggression which may at any time grow from Eastern Asia. Linked with the Philippines very naturally is French Indo-China. French Indo-China, again held by powerful air forces and a competent land army, would derive a great deal of its strength from air power on the Philippines.

Between them they could throttle the naval power of manoeuvre of an Eastern Asiatic Power. The link between them is the island of Hainan. It is easy to see how weak becomes the rim in Indonesia if the Philippines are either neutralised or in an enemy's hands, and how great is the danger if the defences of French Indo-China are not held in place against the huge land potential of Eastern Asia. To my mind French Indo-China, Hainan, the Philippines, with the supporting area of Borneo and Singapore, are one problem and a vital one.

The next weakness in the rim, and one which is most difficult to strengthen, is the wedge which runs from north to south through the now priceless oilfields of Persia and Iraq. Admittedly we have for a long time had certain small rights for the establishment of air power in Iraq, but air power in Iraq, over these wide desert spaces, can only be held in place by highly mobile land power, the nearest of which can only be placed in Baluchistan and in Transjordan, where it can operate over the land masses without crossing a sea.

*This article was written in December, 1944.

These two areas between them might be able to operate concertedly towards Iraq provided that no great Power had interposed its strength. If that were ever to happen, and a great foreign air power were to be established on the shores of the Persian Gulf, then the Imperial communications and chances of Imperial concert in war would be in greater danger than ever before.

The successful prevention of anything of this sort ever happening lies in three directions only, as far as I can see. The first is in the accumulation of great land and air forces in Baluchistan, Transjordan and Palestine, with a strong air force in Iraq. The second is the installing of international police forces to look after the area. The third is the building up of India into a great military power. This I believe to be in any case the greatest factor for peace in Asia and the Far East. India, as a democratic power under the guidance of a democratic Britain within a democratic commonwealth, should have an immense influence in the councils of Asia, and should be able by that influence and by ability to act, to keep the peace in Asia for centuries to come.

The rim in the Far East of which I am writing comprises a strategic area of islands and seas in which combined operations of land, sea and air must predominate. Most of the more vulnerable islands are forest-clad and comparatively rich, or can be made comparatively rich, in agricultural products fit for the supply of armies. Further north we come to a continental area, starting with Indo-China and ending at North Assam, of varied mountain and plain land, mainly forest-clad as far as I can make out except for the agricultural plains of Indo-China and Thailand.

Thence north and north-westwards there is the great Himalayan mountain barrier, Tibetan highlands, Karakoram, Pamirs and Hindu Kush. Within the mountain barrier are the vast plains of India, mainly open and cut by considerable rivers, the natural air-transit junction for the East and for Australasia. *India is one tremendous airfield whose boundaries, except for the Southern Baluchistan and Persian deserts, are comparatively easily held.* One day she will be a great air power, military and commercial.

From the mountain barriers west and north-westwards there is in general a great desert area, except for the wedge of mountains and plateau stretching from the Elburz to south and south-west and the mountain strip of the Palestine and Syrian littoral. The desert areas are the home of mobile land power, covered and driven on by great air power.

* * * *

War, like the course of human life, has always moved along inevitable trends. If one can name these inevitable trends and can follow them for a certain distance one can determine how war is bound to evolve. Very naturally, we start with the traditional arms, so let us begin with the Navy and the Army, follow on with air forces and certain other technical advances, and finally try to place the future war along the frontiers of India and on the desert areas from Baluchistan through South Persia. It would be interesting to extend our examination to Indonesia, to Iraq and to the Western Desert of Egypt, but space does not permit.

Where does the Navy fit into the picture of war? In the wide oceans we have seen sea battles lost and won by the use of land-based and seaborne airpower alone. It would be a rash man who would prophesy that in the Pacific the capital ships will ever again join battle. However, he might just be right if circumstances were such that aircraft could not take the air. They might be altogether absent from the area, or they might be unable, owing to climatic conditions, to operate, or the aircraft of one side might have been destroyed.

Even in these circumstances one has to be certain that the conditions were such that both fleets were either willing or compelled to join battle. This might happen if, as in the Philippines, the waters were very narrow. So it seems that the chances of the big ships again fighting are small.

Fleets go into action in order to gain surface control of the sea. In so far as surface control can be gained by other and more effective means, and more economical means, there is no need for fleets to engage each other.

I personally cannot, however, see that within the next 20 years air freight can possibly replace sea freight as an economic and altogether better way of carrying heavy weights of cargo, and even possibly of humanity, across the seas. Thus, although there must be a tremendous increase in the weight and variety of cargo carried by air on ordinary commercial occasions, and therefore a great increase in commercial air fleets, there will still be a considerable quantity of heavy cargo carried on the sea both in peace and in war. True, this cargo will undoubtedly be carried by faster freight ships than those of the past and therefore the naval escort vessels to these ships will tend themselves to become a great deal faster still.

The first determining factor in the nature of the future fleet and of its operations is the nature of the escort vessels required for our freight ships. At the present time and, as far as I can see, for at least 20 years ahead we need some type of fast escort vessel for anti-submarine work and a considerable number of aircraft carriers. If my supposition which I make later on is correct, that aircraft will be able to operate in virtually any weather, using its new devices, then it would seem that this is all that is needed for the protection of seaborne traffic.

But this is not quite all, because it is more than probable that fighter-escorted bombers will be able to tie in, for instance, right across the North Atlantic, and therefore it will probably be essential to conduct one's seaborne traffic along routes which are under the cover of one's own land-based air forces.

We have to realise that it is not the sea which is valuable for war; it is the land masses. Let me illustrate this. In the days to come a harbour which is not covered directly by great airfields will be of little use. Therefore, we will tend for war to make use only of those harbours which have a sufficient hinterland, and, furthermore, our freight ships will be compelled to have a longer range without refuelling. The latter is a natural outcome of better power production, as well as an inevitable necessity brought about by the increased control of the world by air power.

As freight convoys will try to keep under cover of their own land-based air forces, so will a fleet attempt always to bring its naval opponent to battle under the same cover and away from that of the opponent.

We now turn to armies. We are swinging through a period of normal area war of fortresses, assaults and mobile field armies, to a period when in the developed countries of the world abnormal war of virtually unbreakable linear defence is about to come back again.

Were the French to-morrow to fortify themselves afresh against German attack by land armies alone, they would not find the same difficulty as in 1940. Heavy defences in great depth of position warfare, with the unlimited use of mines of all sorts and descriptions which a nation preparing in peace can produce to stem a great onslaught, will make an almost impenetrable land barrier.

If this is combined with a mobile defence of the rearward parts of the deep defences then I believe that by 1960, unless some quite extraordinary new weapon appears, a nation which has only a land barrier of comparatively restricted length against a neighbour will be able to render that land barrier too expensive to be broken by land forces, even supported by a great bomber force, always provided that the garrison is prepared to fight on.

I do not consider that this position has been reached to-day, for it is my firm belief that were the whole of the British and American air-power applied tactically to the land battle we could, provided that our administration survived the ordeal, thrust ourselves now (December 1944) successfully and decisively into Germany. I am firmly of the opinion that we have hardly touched the fringe of direct air support for our land offensives, and that by our neglect we are prolonging the war and wasting valuable lives and costly material.

If in 20 years' time the land barrier held by a national army, and backed by the levee *en masse* of the nation, can make a land attack so costly and prolonged as not to be worth trying, then we may be sure that a military nation which is determined on the offensive will strive by some other means to regain its power of manoeuvre, for it is that quality which is all that ever matters in war. It is the ability to bring fighting power to the place where a success can be gained and a decisive victory won. To obtain this power of manoeuvre it is necessary to strangle the power of manoeuvre of one's enemy.

Therefore, I can at present see no means for this aggressor to obtain his military ends other than by airborne landing in decisive strength within the enemy country, followed by the certain and uninterrupted re-supply of the forces so landed.* This appears to me to be the inevitable trend of land warfare. It is the substitute, and a very sudden and ubiquitous substitute, for the sea-borne landings of Peninsular days. However great we may think the difficulties, however much we may argue against the possibilities, no human resistance or argument will prevent this coming about. It will come.

Perhaps, contrary to the experience of this war, we may find in years to come that the air arm can so beat down an enemy's resistance in the homeland that this invading army may be of the lightest.

There are certain other technical developments which are making the airborne assault possible by their greater range and accuracy. Again, for their perfection they will depend on their being installed upon the land masses rather than carried by ships on the sea.

I firmly believe that soon after 20 years from now, with the discovery of a new propellant and a terrible and destructive new explosive, probably as a result of research into atomic energy, the whole aspect of war will change with the whole aspect of daily life. *Aircraft, or their successors in the air, will compete for war purposes favourably with seaborne freighters, and war will go into the air almost entirely. Defence will not only be on the frontiers, but it will be powerfully maintained over the face of a whole country.* And all this will happen if we cannot educate the world to outlaw the settlement of disputes by force, and if we cannot distribute equally, and justly the products of the earth on which we live.

*After 1960 we may well have found an "explosive" which can not only put a blanket over the surface of the enemy's country, but also penetrate and disintegrate "targets" far below the surface of the ground, with its atomic power. There will be some sort of defence against this. The sooner we find both "explosive" and defence measures, the better.

And now for the air. Where is it tending? Perhaps this is more easy to see than the tendency of factors that affect the Navy and the Army. We are making for far greater safety of flight, for speeds of fighting craft of 700 m.p.h., and for infinitely greater range. *The higher speeds are going to force us to find some other means than the shell and rocket for destroying flying aircraft with our land defences.* I do not know, for unfortunately I have no access to scientists, what this probable land weapon will be, but I am sure that no shell or mass of shells will be able to destroy such fast aircraft in full flight, although they will be able to destroy them as they come down to land.

From the three tendencies above we get a far greater mobility of air power than we have to-day, and in spite of all warning apparatus that we may have, we will be far more prone to be surprised in time and place by the attacks and movements of these air forces.

Armament will be getting more powerful and lighter in comparison with power. Armour will be getting thicker, forcing us to look for this better new weapon to defend ourselves from air attack, and with which to arm our counter-attack aircraft. Freight-carrying capacity and speed of freighter aircraft and their range and size will all increase. Far greater bomb weight, if the bomb is to be the weapon, will be carried.

Devices will be coming along to cut down very considerably the landing and take-off space needed for even the heaviest aircraft.

Already, whenever we are considering a land or sea operation, we always look first to see what air power can do. It is becoming the preponderating consideration. This is significant for the future. My view is that in the future it will not only be the preponderating consideration, but the primary arm by which an enemy can be destroyed, if one can term "an arm" the means of carrying great armies into an enemy's territory.

Our armies are taking to the air as well as to the sea; in days to come they will take to the air in preference to the sea, for in that element they will get an infinitely greater mobility and ubiquity and a potential for surprise such as has never been seen before. But we must remember that all this must depend on firm air bases upon the land masses.

The ocean spaces will to some extent give our airborne forces a great opportunity for surprise operations, for the ocean spaces, where people do not live and which can probably be cleared of tell-tale shipping well beforehand, afford us the means of unannounced and uninterrupted approach to our enemy through the air.

From what has been said it is apparent that the very first function of a nation at war is to obtain air superiority in the general sense. This can only be got, as far as we know at present, by the means which we have employed in this war. That is to say, by the attack in the first place on the enemy's war potential within his own country. It must depend on his air defences as to whether we must first attack those before we can carry out this great air offensive on his industries and communications. We must form some idea as to how a war would start; there is bound to be a heavy and prolonged air battle at its opening in order to clear the way for the side which intends the offensive. A prolonged air battle of this sort may well bring about the virtual destruction of an enemy's air defences.

I have said that airborne operations may well be the decisive act of war. It is not possible to foretell at what stage important airborne operations will be

launched, any more than it has been possible in the past to say at what stage we would land on an enemy coast, or launch a decisive land attack, but it seems improbable that, until the hostile air force is sufficiently under control and the enemy's war potential badly mauled, the aggressor will ever find himself in a position to launch his main airborne armies. Therefore, unless one side is very weak in the air it is unlikely that a war would start with any great airborne attack.

Looking forward 15 to 20 years, I do not think that one would be right to say that at that time airborne attack will be sufficient in itself, and for that reason somehow or other the aggressor will have to find the means of combining his land and airborne attack, and this results in the airborne attack of 1960 being still tied in to the land operation, albeit on a bigger scale than hitherto, and being launched in order to facilitate that land operation.

Thus, however strong the airborne attack, it will not be launched to any great depth ahead of the land attack in the first stages. I am speaking here of an attack launched in 1960 across a restricted land barrier, such as that between France and Germany; let us see what the position would be at the opening of a war launched against India's boundary with Persia.

Here we have an open space which it is very unlikely can be continuously closed by the forces at India's disposal to the same depth and the same strength as can the French frontier. If it can be so closed, then the conditions are the same, but let us assume that it cannot be so closed. We now have a war of mobile armies, and any defences that there may be can only be held in place by the mobile armies. If the mobile army is beaten, then these defences will either have to withdraw or suffer siege operations.

Let us assume now that the Indian Air Force is very powerful at the outset. Would an enemy be prepared early on to launch a great airborne attack, which he must re-supply, deep into India's territory? I do not think so. For the dangers of passing airborne forces over such great distances in the face of a strong fighter force are probably too great to face. But we must remember that, with the enormous width of India's frontiers, it may be possible, as we have seen that it is possible over the sea, for an enemy to evade the mass of our air forces, and even to re-supply the airborne troops already landed by using still other circuitous routes.

However, if sufficient airfields exist about the point of landing, in due time a superiority of fighters will be concentrated by the defender to cover the actual point or points of re-supply. This will be India's problem against airborne forces in the early days of a war.

How will things shape over Indonesia? I think that something of the same problem will evince itself as in the defence of India, for it hardly seems possible that at the outbreak of war we can concentrate our air defences for certain in such a way as to meet airborne attack from any direction. But we have got a certain advantage, and it is that, provided Indo-China and the Philippines are held, we have two very effective air outposts looking in the right direction. Here, the follow-up of an airborne attack will have to be by seaborne forces and not by armies operating over land, and this makes the defence problem far easier.

However, we still have the necessity of having to concentrate air defences at any particular place, in order to prevent an enemy from seizing a forward air base by airborne attack. If he were to succeed in seizing such a base and could re-supply it, then he might well obtain the air superiority over a vital area.

which we by rights should possess. We have therefore to be able also to concentrate land forces where needed and at speed. They must be air-transported.

Disorganisation of an enemy's aircraft productive power has been achieved in this war, but all nations have learnt their lesson, and it seems pretty certain that aircraft will in future be produced underground, and that a great deal of even the heavy industries will be so sited that they will be most difficult to attack. Perhaps ordinary evolution will send industry below the surface to save congestion above. Dispersion of industry through what we may call "cottage industries" will be the normal thing for war. Operatives and others will probably still live above ground, and communications will still have to run overland, but a great deal of the vital movement of war products will be done by air within the country and over the seas.

It seems that if war is still to be an implement of international policy, then, since the onslaught of an aggressor will be very sudden, all first-line defences against airborne attack (of which there need, it seems, be very little warning) will have to be in position throughout the periods of so-called peace.

The picture of life on this planet in normal times is therefore one which you and I can hardly bear to contemplate. If atomic energy is harnessed to war, then where will destruction start and where, if ever, will it stop? How far will aircraft be needed to carry forward the new weapons of war that are to come? Will they be needed at all? We want answers to those questions.

* * *

Thinking on paper as I have through these pages, one tendency of war manifests itself to me above all others, one really new phenomenon. *It is that war is tending to take place inside an enemy's country, as well as, or instead of, at its frontiers.* Long-range aircraft: long-range weapons, such as rockets: increasing fifth column activities: long-range radio control: even the ability to cast one's voice inside an enemy's country. These, taking them in all and with other like things that the coming years may bring, make one expect that in the future war will be fought inside the enemy homeland more than against its borders.

It is hard to say how far these advances (save the word!) will take us all in 20 years' time: with the exhaustion of the war, not far perhaps. But I believe that is the future picture of war and since I believe it I would ask that it be considered in all its aspects, regarding ourselves for once as the aggressors, so that we may at least be ready with our defence. An organisation must be set up to study the matter, for we need a new Political Geography in which we may assess the true relation of the land masses and the ocean spaces, and the consequences of the launching of war upon the homeland rather than at its borders.

This fantastic change in the nature of war has come about from the constant striving of all armed forces to gain full power of manoeuvre. On land it is being checked and limited, so we take to the air. We, as an island power in Britain, are fatally threatened by this change. Blockade is the most potent weapon of war, if we include in the term all that goes to prevent an enemy developing his "war potential," his supply to his armed forces and to his people. It is more easy to exert this weapon against us, with our open sea communications, than against any land power that is not as dependent on seaborne supply as are we.

Certain combinations of land powers are almost too formidable to contemplate: to face them with a Britain or a British Commonwealth whose war potential is mainly seaborne is quite impossible. The alternative can only be to make each area of the Commonwealth virtually independent for war—for

instance, the area from Egypt to Borneo,—and to secure by powerful air forces, sea obstacles, and land defences the sea-link between the areas. It would seem that Canada—Labrador—Iceland and Britain are another indivisible area.*

For safety, much of the seaborne traffic may well have to go by air. *For safety, too, the land communications must be improved and increased from South Africa round by Palestine to India, and from Singapore to India, for seaways are vulnerable and it is wasteful of air power to have to use it for sea convoy work.*

Yesterday we examined our enemy for weakness on the battlefield. Today we examine him for weakness, not only in the battle area but in his whole economy, his industry and in the body politic. The first step in war, by an aggressor who lacks any useful commodity from his war resources, will be towards the acquisition of what he lacks. Thus the first care of a defender will be to prevent the aggressor acquiring this commodity.

Much can be done to this end in peace-time. If the aggressor is permitted to build up, or to acquire, the whole needs of a great war potential, then at least the war will be prolonged. Among the commodities are not only the things that we see, the products of the elements and of industry, but also the products of human intelligence and research. The last are the most important, so it is not an exaggeration to insist that education is the first and most important of all war commodities—the building of intelligence, the accumulation of knowledge, the creative urge, and the building of character.

To sum up on the largest issues :

War tends to be projected more and more into an enemy's homeland rather than against his boundaries : it is there that victory has been won in the past and will be won to-morrow, but the process is now different and more deadly. What will that process be in 1970 ?

The land masses, with their vast populations and land communications, are to-day of greater war value than the ocean spaces and seaborne traffic.

We must not in peace any longer shirk the examination of war. The examination must be intensive and urgent.

Here we will leave this subject for the imaginative man to limn for himself the picture of life as it will be lived in peace-time under the shadow of war and the preparation of the homeland for war.

* * * * *

We pass now to some of the other phenomena of which I am aware : there must be many of which, lacking the help of engineers and physicists, I am quite ignorant. R/T and W/T and all their allied inventions will before long make communication certain in all times and places over the whole world, and bit by bit we will find ourselves thus able to communicate using only a small and light apparatus. It will be the normal way of addressing each other at a distance : the whole world will thus be talking instead of telegraphing and telephoning.

Air navigation in all weathers will be easy, and so will the accurate launching of aircraft bombs, etc., once a target's latitude and longitude are known. And this, too, may apply to the ground-launched rocket bomb or its later development.

Against the attack we will find that visual watch can be kept by the defence to great distances in all weathers. Rocket artillery is gaining in range. The struggle will not be so much to increase the weight and range of the missile

*Unless, as is likely and possibly desirable, Britain is to regain a great part of her insular advantage by putting her boundaries in East Germany, Czech-land, the Swiss Alps and the Pyrenees.

as to guide it to its destination without interference. It is on this improvement that we must work at top speed. Atomic propellents and devastating atomic explosive charges will soon be commonplace. Whether atomic power is within 25 years or so to substitute all fuel-derived power, or to go hand in hand with it, I cannot prophesy.

Certainly we can say that all weapons will tend to be lighter or more easily hauled about, and of greater power for weight than to-day. It is the means by which we can discover the target that will need most investigation.

Greater efficiency with less weight. Where does this lead? It means that in the air we can carry far better weapons and equipment than we can carry to-day, and more of them. Is this what we as an Empire want? If it is, then we must plan for it and research for it and invent for it and build for it, so that the war that is fought shall be the war as we want to fight it, and not as our enemies want it to be fought.

Look at the map. We sprawl right across the world: almost always we are on exterior lines for war. If we are to rely on our sea communications to shift our power we will be too late at every point. If we do not hold an air umbrella over those communications, we will never get by sea from one place to another at all. The transport for our armies must be in the air, at least for our immediate needs of defence.

From the ocean spaces we derive one advantage. We can pass our air transport over them without hindrance, provided we hold the outer ring, the rim. Here I am not concerned with any other part of the world than the rim of the Eastern wheel, its spokes and its hub. We cannot defend everything: if we do we lose everything. Napoleon and Sun Tzu have both told us that.

We must hold firmly our great concentration areas such as India, and to her flanks Palestine and Transjordan, Central Burma and Indo-China. All of these frontiers lend themselves to land defence, and economical land defence, if properly laid out. We must prevent an enemy from cutting our air routes between these places, so those routes must be well back from the land defences which cover our combat airfields.

And the land forces we need are the local defensive land forces of the frontiers, the mobile local land reserves, the strategic airborne reserves and, lastly, the seaborne reinforcements. The air forces we need are the local defensive forces, the mobile local reserves, and the highly mobile airborne strategic air reserves and escorts, the heavy seaborne air installations and replacements. The sea forces needed are the escorts to our sea convoys and the vessels to damage the enemy's seaborne traffic. The latter, I imagine, will be aircraft carriers and submarines, which may perhaps also carry aircraft and be far faster than to-day. We must consider whether anything of the nature of a "monitor"* is needed to support seaborne or even airborne landings.

Lastly, I must strongly insist that if this war has taught us anything at all, it is that there must be an integrated higher staff and integrated higher command to direct the operations of all three services to the common end. We cannot have petty jealousies diverting us from our war and battle aims. This staff and this command can only get informed instruction from the material produced by some sort of "future planning" staff examining the whole of war in its "total" aspects. To-day we are not trained to this standard.

* I use the term generically to cover all types of naval craft suitable for providing this support. They may be ocean-going, heavily-armoured warships, or flat-bottomed, thin-skinned gun platforms.

To conclude let the reader turn back to the quotation at the head of this paper.

We made a gift to our enemies of Major-General J. F. C. Fuller because our precious young men and our irresponsible old men heaped scorn on our Army and on all to do with it. The world was saved by the Desert Army as well as by the fighters of the Battle of Britain.

To-day we speak with respect of the Czech (I hope I spell his name rightly) Mitschke, and of de Gaulle, as students of war and as prophets of the war to come. Neither of them is more than a poor imitation of Fuller. In future, let us listen first to our own more experienced and more intelligent military writers before turning to foreigners for advice.

The fundamental cause of this war was that Germany thought we knew nothing of war and were not going to fight.

DOGS IN THE JUNGLE

"The effective use of scout and messenger dogs in the South-West Pacific area is typified in a series of reports of several patrol operations involving the use of war dogs by units of the 31st Infantry Division. In only two of the operations was the work of the dogs considered ineffective, and special reasons were advanced for both failures.

"Division headquarters in summarising the reports said:

"Scout dogs will warn of the approach of any persons, American or enemy.

"Scout dogs relieved the tension and increased the confidence of the patrol as a whole.

"Scout dogs enabled patrols to advance along jungle trails at increased speed and with comparative safety from enemy ambush and sniper fire.

"Scout dogs gave warning of enemy presence within thirty yards under all conditions. In some instances warnings were given from distances as great as 300 yards.

"Scout dogs gave timely warning of the nearness of the enemy and enabled the patrol to manoeuvre, to send scouts forward, and to secure or conceal their position.

"Messenger dogs were used only on short-range reconnaissance missions because three miles is considered the greatest distance a dog can be depended upon to return with a message."—*Infantry Journal*."

POST-WAR PLANNING OF DEFENCE SERVICES

BY BRIJ NARAYAN

THE FIRST essential of post-war planning of the Defence Services in India is to assess the composition and strength of the Defence Forces likely to be required. That, however, depends not only on possible constitutional changes, but also on the post-war international and internal political and economic situations, and especially international Disarmament Policy. These factors cannot at the moment be assessed with any degree of accuracy, but Defence departmental Chiefs should be able to give some idea of Indian post-war requirements. Certain facts, however, which can be assumed, and which can be modified in the light of later events, include :

(i) It should be assumed that India will be a Sovereign State in her own right, like any other independent country, *e.g.*, Britain, U.S.A., U.S.S.R., etc.

(ii) India will voluntarily choose to remain an equal partner in the British Commonwealth, and her defence policy will be an integral part of the defence policy of the entire Commonwealth.

(iii) Close co-operation will continue between Britain, the U.S.A. and the U.S.S.R., the British Dominions and China in the political, economic and cultural spheres.

(iv) India will have non-aggression pacts with the U.S.A., U.S.S.R., China, Afghanistan, Persia, etc., and with other States which believe in maintaining world peace.

(v) The internal structure of India will be on some form of Socialistic-cum-Democratic lines, and she will be in a position to develop her manpower and material resources to the full.

(vi) India's own defence services in the past have consisted almost entirely of land forces. The defence policy of the country needs drastic revision, and the Russian bogey placed in its proper perspective. There should be a comprehensive plan of defence against attack by land, sea and air at all vulnerable points, and the Naval and Air Services must be given their proper place in the future local defence plan of India. There will have to be greater co-ordination and integration between the three Services.

(vii) The ever-increasing importance of mechanisation will need to be kept prominently in view, and all its implications faced squarely.

(viii) India will not be able to depend on the U. K. for munitions and technical personnel. India must be organised so as to be able not only to look after herself during a war, but to be able to assist countries of the British Commonwealth if communications are severed. In other words, from the purely defence point of view India must no longer be merely a raw-materials-producing country, but should be industrially developed to maintain supplies to armed Forces and civilian population from her own production resources.

Defence policy should cater for production of armaments, vessels of all kinds, tanks and vehicles, aircraft, basic chemicals, etc. This does not necessarily mean that India should manufacture *everything* required for her defence services, but only such items as fall to her share in the Commonwealth

defence plan. Provision will also have to be made for technical institutions within the defence services.

(ix) In spite of the internal political situation, there has not been much difficulty in getting all the personnel (officers and men) required from India; on the other hand, it is true that the response has not been as widespread as it might have been. One reason is the use of the military to suppress political disorders, which makes it rather unpopular, both with the intelligentsia and the masses. Defence forces should be completely divorced from maintenance of law and order, and Provincial Governments asked to build up properly equipped police forces for internal security.

To make defence forces popular and attractive, they might be used with greater advantage on social services, such as famine and flood relief, road construction, fighting epidemics, etc. The work done by the Forces during the Bengal famine and in the Bombay disaster won general commendation and admiration, and in peacetime it should be easier to employ the Services in such emergencies than has been the case during the war. This would ensure a real "People's Army," would attract the right type of personnel, and would establish healthy contacts between civilians and defence forces.

(x) Distinctions between so-called "martial" and "non-martial" races should be abolished; recruiting should be thrown open to the entire population, the only criteria being character, physical fitness and a proper standard of education.

(xi) There have been complaints that University and Territorial Corps have not been fully used. These sources of supplementing regular forces in times of war can be of immense value, and would show better results if boys and girls could be made Navy, Army and air-minded at an early age by receiving proper training and education.

(xii) Closer liaison between defence services and educational institutions will be necessary. Defence services must have their own technical institutions, but the right type of education in schools and colleges would be of great help. Conversely, defence institutions can impart technical training, and inculcate an aptitude for manual labour which would be of value in civil life. A proper co-ordination between Education, Defence and Industry is essential.

(xiii) Future wars will probably be "Total Wars." Defence will no longer be a matter for fighting forces alone. Therefore, compulsory military service should be an essential feature of India's post-war planning. This, however, must not instil an aggressive attitude of mind, which would be politically dangerous and would merely lead to more wars of aggression. Apart from purely defence aspects, military training will assist in cultivating self-discipline, a wider outlook, *esprit de corps*, growth of a common language and a sense of solidarity and national consciousness. Probably the remedy lies in working out a comprehensive plan of national service which should aim at training men and women both in civic duties and defence—in other words, producing an all-round efficient citizen who knows how to act in peace and war. A difficult problem—but not insurmountable.

(xiv) The maintenance of a defence force in peacetime is in the nature of an insurance. It is usual to treat defence problems in peacetime in rather a casual and academic manner, and the tendency is to spend as little as possible. The result is that when a war breaks out, the insurance proves worthless and we pay through the nose to win it. A complacent and step-motherly attitude towards defence expenditure in peacetime should be deprecated. A psychological change in the attitude of civil departments is indicated.

On the other hand, defence services are apt to think that during a war all that matters is meeting the need of defence forces, which must always have an over-riding priority over "civil" requirements. This attitude is equally short-sighted and unsound. "Total" war requires total mobilisation of the entire manpower and material resources of a country; civilians are as essential as soldiers for winning a war. Consequently, beyond a certain stage, it is impossible to distinguish between a defence and a civil need.

Take food, for instance. A soldier, with his more strenuous work and hardships, must be fed with a better diet; but a labourer working 10 to 12 hours a day in a shell factory must be nourished properly, or the soldier will not have sufficient shells. Cholera or plague may break out in an industrial area and reduce munitions production. Because of these facts, the phrase "Essential civil requirements" was recently coined, but the defence services hardly seem to appreciate its full significance. They always talk of "keeping up the morale of the fighting forces;" seldom of the "morale of the civilian population," which is equally vital for the prosecution of a war. Soldiers must develop the right attitude towards the civilians, and *vice versa*.

(xv) When a country switches from peace to war, changes in its defence organisation should be as few as possible. The peace organisation should be inherently capable of being put on to a war footing speedily, and without undue travail.

(xvi) Too much centralisation has necessitated frequent references on matters of comparative minor importance arising out of local conditions. The hands of Army commanders and local formations are tied down too much by a bewildering multiplicity of rules and regulations and procedure. The Staff at G. H. Q. cannot possibly have a full knowledge of local conditions, which is essential for them to adjudicate properly, and the tendency is either to say "Yes" to everything, which is a waste of time, or to reject it, which is most disheartening to the man on the spot, who feels he could do a job better in a certain way, but is helpless to do so.

Decentralisation, with suitable checks, should be the keystone of any future planning. It would be a sound policy to lay down broad principles from the Centre, leaving their execution to the local authorities, who should be encouraged to make full use of the powers delegated to them. Abuses could be easily checked by inspecting officers, proper financial control and an independent audit.

Financial advisers with wide powers should be attached to all Armies and Commands. Once a man has been appointed to a post, he should be given adequate powers and discretion to carry out his responsibilities within directives issued to him. If he is found to make indiscreet use of his powers, he should be severely punished and ruthlessly weeded out. He should not, however, be allowed to labour under a sense of frustration.

"Red-tapism" must be cut to the absolute minimum. Centralisation and too many formulæ curb initiative and sense of responsibility, and these characteristics become so ingrained in peace that they become well-nigh impossible to eradicate in war. The result is endless correspondence, delays, waste of time and labour, inflation of staffs and establishments, and "frayed" tempers all round. Remember, the outlook and habits developed in peace cannot be changed suddenly in war. It takes time to make psychological adjustments.

(xvii) There is a tendency to treat appointments at G. H. Q. as more important, and consequently to attach higher ranks and pay to them. This

policy needs revision. Take, for instance, a unit commander responsible for training troops, or a commandant of a large stores installation. Both carry heavy responsibilities, but their grading is usually the same as that of a Grade I officer at G. H. Q. More harm is done if an inefficient officer is posted to an arsenal or depot or unit command than if posted to G. H. Q. as Grade I.

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Problems confronting defence forces in peacetime are essentially the same as during a war, except that in the latter they are multiplied a hundredfold, and speed and adaptability become of the utmost importance. Delays, dislocation and chaos during war are really due to the fact that organisationally and psychologically we work in an entirely different atmosphere in peacetime. The test of a peace organisation is that it should always have something of the "warmindedness" about it—otherwise you acquire it long after a war has started. This is evident in everyday handling of the war problems both at G. H. Q. and in civil departments—more so in the latter.

There should be greater liaison, co-operation and co-ordination between defence and civil administrations than hitherto. It may be necessary to have an institution of the nature of the Imperial Defence College in England, where officers of civil and defence services could study common problems together. The "hush-hush" and "secrecy" policy should not be carried too far. After all, when war does break out, civilians have to be taken into confidence, and the defence organisation depends entirely on the civil administration for providing manpower and raw materials for turning into soldiers and warlike stores.

Let the civilian have a clear-cut idea of what he has to face when a war breaks out and what defence services expect from him. Both should feel they are talking in the same language. Nor should defence officers keep aloof from the public and the industrial world, whose ignorance of defence matters is a great handicap during war. All this can be remedied quite easily without giving away "secrets." The political, administrative and psychological advantages of close liaison between civil and defence on the one hand, and defence and the public on the other, would be immense.

Let it be assumed in these proposals that the defence forces of India will be completely Indianised within a specified period, say, 15 to 20 years, and Indian Ministers will be competent to give decisions on all matters. In view of the fact that they have been out of touch with defence affairs, they are, to start with, bound to make mistakes—even serious blunders (and many of them); but this must be faced if they are to stand on their own legs.

"Experts" may be obtained from the United Kingdom and other allied countries to help them put things on a proper footing. For attracting the right type of persons, India may have to offer very attractive terms, but any additional expenditure incurred on this account will amply repay itself. It has been done by other countries, and India should follow suit.

The need of senior Indian officers is a great handicap, but it is due to want of the right type of education and upbringing, lack of encouragement, step-motherly treatment and a host of other causes, rather than to a lack of indigenous talent. It is incredible that during the last quarter of a century very few Indians have been found suitable for senior staff or command appointments—not even in administrative posts—while comparatively young officers hold such appointments in other countries. The organisation suggested is designed to cater for all these initial shortcomings. Risks there will be, but they have got to be taken.

Broadly speaking, all matters pertaining to the defence forces fall under these main heads :

POLICY AND ORGANISATION.—General strategy, planning and operations ; strength, composition ; armaments, equipment and stores, *i.e.*, all questions relating to pattern and design, specifications, scales, reserves, equipment tables and scientific research ; staffs and establishments ; education, schools of instructions ; military training ; military intelligence and security ; censorship ; public relations.

MANPOWER.—Assessment of all manpower required for all categories and ranks, including civilians of all grades ; statistics connected therewith ; recruitment ; terms and conditions of service and pay, allowances, pensions, etc. ; welfare and amenities ; hospitals, sanatoria, rest camps, etc. ; discipline ; military law.

STORES AND EQUIPMENT.—Provision ; procurement and manufacture ; storage, receipt and holding of all stores and problems connected with it ; maintenance and repairs of all stores and equipment, including vehicles, aeroplanes, ships of all kinds, etc. ; inspection of all stores ; salvage and disposal.

WORKS AND TRANSPORT.—Accommodation ; movement of personnel and stores ; works, construction of roads, bridges and buildings, etc. ; communications (Posts and Telegraphs) ; embarkation staff.

There should be a Standing Defence Committee of the Indian Cabinet for handling all defence problems mentioned under the above headings. It should consist of the Prime Minister (*President*), War Minister (Vice-President) and Finance, Supply, Foreign, Development and Communications Ministers.

All questions of high policy must be discussed first by the Defence Committee and decisions confirmed by the whole Cabinet. Once a decision on high policy has been given, the further responsibility to implement it will rest with the War Minister, who would also be responsible for giving all policy decisions so far as they affect his portfolio.

The War Minister would administer defence affairs through four sub-committees dealing with (i) policy and organisation ; (ii) manpower ; (iii) stores and equipment ; (iv) works and transport. These sub-committees should be composed of the Minister or Deputy Minister as Chairman, its members being a representative of the Army, Navy, Air Force and Finance Minister.

Matters affecting Policy and Organisation will be presided over by the War Minister himself, but the other three sub-committees will be under a Deputy Minister, who will be an elected member of the Central Legislature, though not necessarily in the Cabinet. The organisation would be on the following lines :

DEFENCE COMMITTEE

WAR MINISTER

SUB-COMMITTEES.

Policy and Organisation.	Manpower.	Stores and Equipment.	Works and transport.
CHAIRMAN.	<i>Chairman.</i>	<i>Chairman.</i>	<i>Chairman.</i>
War Minister.	Deputy Minister.	Deputy Minister.	Deputy Minister.
<i>Members.</i>	<i>Members.</i>	<i>Members.</i>	<i>Members.</i>
	Reps. of	Reps. of	Reps. of
Cs. of G. S. Army, Navy, Air.	Army, Navy and Air.	Army, Navy and Air.	Army, Navy and Air.
Rep. of the Finance Minister.	Rep. of Finance.	Rep. of Finance.	Rep. of Finance.

The War Minister will have a central secretariat with a permanent secretary, which will also be the secretariat for the Defence Committee. Each sub-committee would have a sub-secretariat of its own, with suitable permanent staff, civil and military. The central secretariat under the direction of the War Minister will do all co-ordination and issue all orders and instructions of a general nature. The secretariat of each sub-committee will issue orders to all so far as subjects coming under its domain are concerned. The permanent staff of all the secretariats will be mixed—both civil and defence officers—each appointment being filled by a civil or defence officer, according to its nature.

How is this organisation to work? Let us take a concrete example. The Cabinet has to decide what forces are to be maintained. Sub-committee No. 1 will work out a plan from the purely general staff viewpoint. This will be passed on to the other three sub-committees to work out its implications in manpower, material resources, works and transport. The whole plan will then be examined and co-ordinated by the central secretariat, then placed before the Defence Committee and later submitted to the whole Cabinet for a decision to be taken.

When that is done, the War Minister, with the sub-committees, will work out the plan in detail and later implement it. The Deputy Minister for each sub-committee will be the final authority for deciding matters pertaining to his own sub-committee, and where more than one sub-committee is involved, the decision will be taken by the War Minister in consultation with the Defence Committee, if necessary.

The sub-committees are based on the assumption that complete integration of all defence forces is feasible. It will be readily conceded that integration is possible so far as sub-committees Nos. 2, 3 and 4 are concerned. Matters pertaining to sub-committee No. 1 may be more difficult for an integrated policy. But under any system no single individual can be an expert in all naval, military and air matters, and since the responsibility for a final decision rests with the War Minister, the objection loses much of its force.

Moreover, the suggested organisation is for a transition period, where two main objects have to be kept in view: (i) co-ordination and integration of all common problems, and (ii) full scope for the expression of viewpoints of each branch of the service, so that no aspect is ignored and all factors are weighed. The first is achieved by civilian ministers and the second by experts of each service.

* * * *

India should start with an unequivocal declaration that she has absolutely no designs of any kind whatever on her neighbours' territories and her aim is to live at peace with the world. Wars, however, cannot be ruled out altogether and the maintenance of a defence force of some kind is inevitable. Its role should, however, be to defend the country when attacked rather than to embark on aggression.

Now India is liable to attack by land and sea forces supported by the air arm. This attack can only be repelled by the combined efforts of the Army, Navy and air force working as one unified service. Particularly in the case of coastal defence, all three have to be thoroughly integrated. To achieve this the following suggestions are offered:

- (i) There should be three types of Commands: Air—Army; Air—Navy; and Air—Army—Navy. Each type of command to be fully integrated and inter-service. Commander to be selected from either service and the same principle to apply to all senior

staff and administrative appointments. Training, exercises and manoeuvres to be designed to cater for all three.

- (ii) There should be a single uniform for all.
- (iii) For each service there should be specialist courses of instruction, but one Staff College for advanced courses in higher strategy, tactics and administrative planning. Basic training for all arms should be in combined institutions. Arrangements should also be made with trade and industry for the training of defence officers in higher business administration and trade and commercial affairs.
- (iv) Pay and conditions of service should basically be the same for all services. All messes should be joint and inter-service.
- (v) There should be a single research organisation under a distinguished scientist, with different departments of research according to subjects and not according to service or type of store or equipment, under sub-committee No. 1 but in very close liaison with sub-committee No. 3.

Manpower.—The sub-committee concerned should keep an up-to-date census of all categories of personnel available, in consultation with the Civil Department concerned. Postings should not be haphazard, and there should be no square pegs in round holes. Civilians should be employed to the maximum, with a liability to serve in or outside India in peace or war.

Recruitment should be confined to the very best by competition. Promotion in initial years should be by examination and selection based on the work put in. The present system of recruitment to officers and subordinate grades in watertight compartments should be replaced by a more rational method. It may still be necessary to recruit some officers direct, but the aim should be to promote by a judicious method of examination-cum-work. All promotions to officers' grade should be by a board and not on individual reports. The present disparity between officers' and subordinates' rates of pay should be reduced and "class" feeling gradually eliminated.

Educational institutions should be told of defence requirements, and syllabuses should be brought into line with a student's vocation in life. At present much education is haphazard, and does not produce the type suitable for the defence services' scheme of things. All students should be given some kind of military training, and defence services officers should tour colleges and schools, deliver lectures, and inspire interest in defence work. Particular attention should be devoted to technical and scientific institutions.

Strength of the fighting forces should be kept to the minimum, supplemented by reserves and University and Territorial Corps, based on a voluntary basis to start with. Refresher courses for these Corps should be organised, so that if war breaks out its members would be ready without much further training. Reservists should be available for all types of war: scientific, accounting, clerical and administrative duties, and not only for fighting units. In a country with a population of 400 millions, it should be possible to have two million trained men and women in different categories and grades. There should be no sex bar, except for actual fighting.

Free provision should be made by the State for all personnel of the Defence Services, including: Accommodation for individual and family; light, subject to consumption limit, after which payment should be made by consumer; furniture;

uniform and personal equipment ; annual free travel for leave ; free medical treatment and medicines for individual and family ; education for children up to School Leaving Certificate or Matriculation Examination in civil institutions.

Pay should be consolidated and on a time-scale. It should take into consideration the abovementioned concessions. Posts carrying special responsibility should carry additional special pay. Retiring pensions should be fixed on a basic scale for individual, plus allowances according to the number of family actually dependent. Family and disability pensions should be catered for, irrespective of length of service, and in the event of the individual's death allowances for family should be continued.

Rates of pay must be based on a living-wage policy, plus an element of responsibility of work and danger involved in one's duties. It may be advisable also to lower the age-limit for retirement, thus ensuring fresh blood and an automatic reserve of fully-trained personnel.

In all matters affecting the manpower problem (recruitment, training; etc.), there should be the closest liaison with the appropriate civil department of the Central Government. It should be possible to entrust the entire recruitment work to the civil manpower department, which should have liaison officers from the defence services. Those found unsuitable for the defence services should be handed back to the civil for employment elsewhere, or discharged.

As regards stores and equipment, works and transport, etc., the defence services should leave actual procurement, production, construction to the civil departments as much as possible. With stores, equipment and armaments, defence services should only do "provisioning," "store-holding," "receipts and issue" and inspection. War reserves should be on such a scale as to provide a safe cushion in the event of war, so that supplying departments should not have to face sudden heavy demands which they are unable to meet straightaway. These reserves would avoid sudden spurts in production activity, which dislocate the entire civil economy of a country.

The Policy sub-committee should be responsible that the requirements of the defence services are kept to the minimum, and a multiplicity of stores and equipment avoided. Specifications and designs should cater for war—and not peace—needs, so that wholesale changes in equipment and scales do not occur when a war breaks out, thus making procurement a difficult task.

Stores Depots and other defence installations should be run with up-to-date equipment and internal transport, and designed not only to ensure speed but also to avoid waste. A margin should be provided for quick expansion also. Transport facilities should form an integral part of all defence planning. Closest liaison will be necessary between sub-committees 2, 3, and 4 on the one hand and the corresponding Civil departments on the other.

* * *

Wars usually show that there is considerable friction between "Finance" and "Defence" officers—not necessarily owing to lack of goodwill, but chiefly because the language of the two is different, and neither party appreciates, much less understands, the point of view of the other. It is therefore essential that Finance and Audit, and Accounts Officers, should be attached to defence units and formations for a year or two ; and as they become senior in service they should have refresher courses in staff colleges at varying times. On the other hand, staff officers should be attached to the Finance Department for a period, and economy and finance should be an essential part of all staff college courses.

Training of combatants should not only ensure fighting efficiency, but also inculcate a keen sense of responsibility with regard to their equipment. It should be impressed on all ranks that care and maintenance of their equipment is of vital importance. This is particularly essential in view of growing mechanisation and the delicate, complicated and expensive nature of modern equipment. If a tank or gun is not looked after properly, it may lead to such serious results as fighting inefficiency and lack of initiative and leadership. Training of officers and men should include such technical knowledge as would ensure efficient and economic use of the equipment and stores entrusted to them. Prizes and awards might be made to those who make their equipment last longest, and for improvisation.

Modelled on the basis I have outlined, India's defence services will march forward with the general economic progress of the country, assisting in no small measure in raising the standard of living of its inhabitants.

WHAT'S IN AN INDIAN NAME?—III

BY LIEUT.-COLONEL F. R. GIFFORD, O.B.E.

FROM Masulipatam and Rajahmundry, we make a short trip to Cocanada (Kāki-nāda: "Crow country"), and then turn our face towards the centre of the peninsula.

We propose to wend our way through the Deccan (Dakkhin: "South") via Berar, probably the ancient Vidarbha ("devoid of *darbha*," the sacred *kusa* grass, which was so essential a material in the effective performance of Vedic sacrifices) into the Central Provinces, and thence through the neighbouring Indian States and Bundelkhand ("the area of the Bundelas," a famous clan of Kshattriya Rajputs) back into Aryāvarta.

All this great stretch of country is redolent of the ancient and mediæval history of India, of the rise and fall of mighty dynasties, both Hindu and Muslim, and of the foundation and decay of their capital cities.

It is now that we will be meeting names of Muslim origin, so the opportunity is taken of introducing the Muslim terminations for place names. For tracts of country the common termination is '-stān or '-istān'. For instance, Hindūstān is "the land of the Hindus," a name originally referring only to the Ganges valley, but now used loosely to embrace the whole of India. Then there are Afghānistān and Balūchistān, the meanings of which will be obvious.

For towns and cities the common endings are "-ābād" (abode of) and "-shahr" (city). The first part of names ending in '-ābād' is usually that of a person, such as the reigning Emperor or king. Thus we get Ahmaḍābād, "the abode of Ahmad," etc. Place names ending in "-shahr" are usually descriptive, for example Bulandshahr: "Lofty City," and a few others.

But, generally, the Muslims preferred to name their cities after persons. At the same time, they had no hesitation in using the old Aryan terminations of "pūr," "nagar," "garh," and "kot" in conjunction with the name of the person to be commemorated. Examples are to be found all over the map. Or again, in a few places, they are merely descriptive, as Aligarh ("High Fort").

Before the end of the 13th century A.D., the Deccan was the home of many Hindu dynasties, but their place was taken by Muslim kingdoms, as the years rolled by and Muslim power was consolidated in the land.

Within the present dominions of the Nizam of Hyderabad there are to be found no less than five famous old capitals, namely, Deogiri, Warangal, Kulbarga, Bidar and Golconda.

Deogiri ("Mount of the god") was the seat of the (Hindu) Yādava dynasty. It was captured by the Muslim king of Delhi in 1309, and was later renamed Daulatābād ("Abode of Empire", not "Riches"), when, in 1336, Muhammad Tuglak decided to transfer his capital there from Delhi, and forced the luckless inhabitants of Delhi to trek there after him. The project proving a failure, he brutally ordered them to walk home. Only a few miles away, is Aurangābād ("Abode of the Throne"), so named by Aurangzeb, the Moghul Emperor.

Warangal (Orukkal: "Solitary Rock") was the ancient capital of the Hindu rajas of Telingāna (Telegu country), and it was stormed by Muhammad Tuglak in 1323.

Kulbarga (better spelt Gulbarga, and said to have been originally founded by a Raja Gulchand) was the first capital of the Bahmani kings of the Deccan, who set up their dynasty during the general confusion following on the death of Muhammad Tuglak. It was renamed Ahsānābād or Hasanābād, after Hasan, the first king of the line. About eighty years later, Ahmad Shah transferred his capital to the much more salubrious site of Bidar (probably a contraction of "Vidarbha"), which he renamed Ahmadābād.

Golconda became the capital of the Kutb Shahi kings in 1512, after the break-up of the Bahmani kingdom. The origin of this name is uncertain. Some spell it Gulkandah, whereas in the script it is Gol-kanda. This can be translated "Round Tank," but this is very doubtful. It is, further, interesting to note that there is in the Madras Presidency a place called Golconda, which is said to mean "Hill of the Gollas." The Gollas are members of a strong pastoral tribe, which is widely diffused in the Deccan, and incidentally strongly represented in the neighbourhood of Golconda. Golconda is, of course, traditionally famous for its diamonds; these stones were not mined there, but only cut and polished.

What of Hyderabad (Haidarābād) itself? In 1590 Muhammad Quli Qutb Shah became dissatisfied with the climate of Golconda, and selected a new site for a capital about six miles away. The new city he named Bhāgnagar, in honour of his favourite mistress, Bhagmati. A short while afterwards, repenting of his infatuation, in an access of piety he renamed it Haidarābād or the city of Ali, the Lion of God (Haidar means "lion" in Arabic, and was the soubriquet of the Khalifa Ali, the prophet's son-in-law and fourth successor).

Dotted round the Nizam's Dominions and outside its borders are the other famous capitals of Bijapur (corruption of Bijāyapur: "City of Victory," as already explained), and its Hindu counterpart Vijāyanagar, seat of the great Rāya dynasty, whose rise checked the extension of Islam in South India. Lastly, there is Ahmadnagar, founded by Ahmad Nizam Shahi in 1490 and, of course, named after him.

In Berar notable towns are Amrāoti ("Immortal City" or "City of the Immortals") and Ellichpur, a famous old station which is alleged to have been named after a legendary Raja II; but it is worthy of note that on the same site had originally stood the city of Achalapūra ("Immovable City"), which was the capital of a powerful dynasty of Hindu kings.

Of the Central Provinces the capital is, of course, Nāgpur. This appears to mean "Snake City," but the gazetteer suggests that it is so called because it lies on the banks of the tortuous river Nag, the windings of which resemble those of a cobra (*Nag*) in motion. At the same time, it should not be forgotten that this neighbourhood was inhabited by a strong tribe of non-Aryans called Nagas, who are very frequently mentioned in Hindu literature.

The hill station of the C. P. is Pachmarhi ("Five Shrines" or "hermits' cells"), so named from the five caves there, which are credited with hallowed associations.

Then we come to Jubbulpore (Jabalpur). This name is explained as meaning "Rock City." Rocks are certainly a distinguishing feature of the landscape thereabouts, but unfortunately "jabal" does not mean a "rock;" it is an Arabic word and means a "hill or mountain." A more satisfying derivation is from Jābali. Jabali was a well-known Brahman sceptic who is said to have frequented the forest in those parts, preaching his heresy.

Conterminous with the C. P. on the west lies the State of Indore, ruled over by the Maharaja Holkar. Indore stands for Indrapur or Indreshwar, after

a shrine dedicated to Indra, the Aryan god of the Rain. Holkar is the family name of a clan of Mahratta shepherds, who originally came from the banks of the river Hol, near Poona.

Similarly, the Maharaja Scindia (Shinde) of Gwalior, the representative of another Mahratta dynasty, is so called from the river Sind, a tributary of the Jumna, which runs through his State.

In Bundelkhand, the most important State is perhaps Orchha. The origin of this name is amusing. The name was spelt Ondchha, and it took its rise from the time that a Rajput chief was shown the prospective site of the capital city. He looked it over and caustically remarked "*Ondo chhe!*" ("It's low enough, anyway!"). Another well-known State in Bundelkhand is Datia. This name comes either from a legendary king called Danta Vakra, after whom the place was named Dantinagar, or as an allusion to Ganesh, the Danti (one-toothed) god.

Next we come to Bhopal, ruled by the Muslim Nawab. Bhopal is locally explained to mean "Bhoj's Dam." Raja Bhoj is revered in Hindu history as possessing all the qualities requisite in kings, together with many others besides. In corroboration of their belief, the people point to the dams which to-day hold up the water of the city's lakes. This is picturesque, but at the same time it is interesting that the accepted spelling is not Bhopal, but Bhupal. Bhupāl means "king", "Keeper of the land," (Compare Gopal: "Keeper of Cows").

We made earlier a passing reference to Muttra, the sacred city of Krishna on the banks of the Jumna. We are to pass through it now on our way to Delhi. Those who have read stories of Shri Krishna's boyhood will recollect that the local industry was keeping cows and making butter (Krishna himself was most justifiably called *Makkhan-chor*: "Butter thief"). The Hindi word for "churn" is *Mathan*, so a likely derivation of Mathura is Mathanapūra, "the town of milk churns."

We halt for a while in Delhi and have a moment to consider the succession of dynasties of the Muslim rulers, who have left their names on that much built-over site. For there were no less than five reigning houses between 1206 and 1526 A.D., when the Moghuls under Babur finally established themselves on the throne.

As far as place names are concerned, we find that during this early period the house of Tuglak made the greatest contributions.

Of these kings Sultan Firoz Tuglak cultivated quite a hobby of founding cities. He built a new Delhi, which he called Firozābād, of course. Then he was responsible for Ferozepore, Hissar (in full, Hissar Firoza "the fortress of Firoz") and Jaunpur (called after Juna Khan), among many other places.

Of the Moghuls, Akbar was the first to give his name to places, and many examples are to be found on the map. Agra he renamed Akbarābād, though the name has not stuck. Another of his creations was the new capital at Fatehpur-Sikri. *Fateh* means "victory," and the place was so named in commemoration of Akbar's victory in Gujerat, and because it was built on the site of a village called Sikri.

In connection with Akbar must be mentioned what we British write as Allahabad. The real spelling is Ilāhābād. Note the difference, for it brings out a very important point. The city had for ages been revered and visited under the name of Prayāg by the Hindus. Akbar attempted to set up a sort of synthetic religion, as a unifying agent in India, which he called Din Ilāhi (Divine

Religion). In furtherance of this idea he named the most sacred Hindu place of pilgrimage Ilāhābād. It is our English spelling, however, which confuses the issue. Allahabad would mean "The Abode of God," while the correct spelling with one 'l' means "The Abode of the god." The God of Islam is Allāh, and no other, as we hear the chanter of the Muhammadan Call to Prayer intone in the Arabic words: "*La ilaha ill'Allah*, etc.": "There is no god but God (Allāh)."

It is time for us to proceed on our journey. From Delhi we are to head northward through the Jat country, in which parts Meerut is a name we all know. It should properly be spelt Mirath, which is the abbreviated form of Mahirāshtra, having been founded by Mahipāl, the eponymous hero of the Maharashtra Jats.

Sahāranpur commemorates the Sufi (mystic) Shah Haran Chishti, who lived there about 1340 A.D.

Nearby is Dehra Dun. "Dūn" means "tract of country at the foot of hills" (in this case the Himālaya "the Abode of Snow"), and *dehra* or *dihra* is a "temple" or "shrine"; hence the whole connotes "Valley of the Shrine". It was made famous by the heretical Sikh *guru* Ram Rai, who took up his abode there and attracted many pilgrims by his practice of dying before their eyes and reviving after a stated period. Unfortunately, on one occasion there was a misunderstanding regarding the length of the "stated period," and the holy man did not revive.

Bareilly (Bareli) was the city of Baral Deo, the chief of the Rohillas, who were such a thorn in the side of the contemporary Nawab of Oudh and of Warren Hastings, who supported the Nawab with East India Company troops.

Following the main railway line, we come to Ambala, which was originally Ambwāla, "the place of mangoes".

Ludhiana was founded by two members of the Lodi family, which reigned in Delhi between 1451 and 1526 A.D.

Around us in this neighbourhood are the Sikh States of Patiala, Nabha and Jind. These are known as the Phulkiān States, being ruled by descendants of the Raja Phul.

Another well-known Sikh State is Kapūrthala. Remember when pronouncing this name that the accent falls on the "u," and not on the second "a". It was founded in the 11th century by the Rana Kapur.

Jullundur (Jalandhar) is named after a legendary demon, said to have been produced by a flash from Shiv's third eye striking on the water of the ocean. The name means "Water-bearer", because on one occasion this demon caught the water that flowed from Brahma's eye.

Of all the many derivations suggested for Lahore [capital of the Punjab, "Land of the Five Rivers"], perhaps the one most commonly believed by the people is connected with the adventures of the two sons of Ram and Sita. Their names were Lav and Kusha, and the former is said to have founded the city of Lavāwar (Lahāwar, or Lahaur) and the latter Kushāwar (the modern Kasur), a small distance away.

Not far to the north of Lahore is Sheikhpūra. This was named after Dara Shikoh, the eldest son of the Emperor Shahjahan, who was his father's Viceroy in the Punjab and the North-western provinces.

Rawalpindi [so named after the old village (*pindi*) of Rāwal which lies to this day a few miles to the north of the present site] leads us on to the ruined

ancient city of Taxila, the most famous seat of civilization and learning in the early days of Aryan India. The real name is Taksha-shila ("Carved Stone"?).

After Nowshera (Nushahra or, in Pashto, Nukkhār), which is a fairly new town, and probably means "Nine towns" not "New Town," we arrive at Peshawar.

Peshawar is a very ancient city. Among the original Aryan tribes which came to India was that of Puru. The name survived, and occurs in the epic period, described in the Mahabharata. Later, when Alexander the Great invaded the country, he was opposed on the Jhelum by a powerful North-Indian king, whom the Greeks called Porus. It is not too far-fetched a conclusion that his real name was Puru. The northern confines of his kingdom were rendered secure by the occupation of the strong point in a strategic position, which had long borne the name of Purushāwar. This meant the "Fort or enclosure of the Purus". The termination '-āwar' stands for the Sanskrit "āwarana", and is to be found also in the derivation suggested for Lahore. Centuries afterwards, Akbar, the great Moghul, through a misunderstanding, thought that the name was Persian of a sort, meaning "outpost", and he thereafter called Purushāwar Peshāwar.

On our way back southwards, we notice what looks like a name of English derivation, namely, Campbellpur. We are deceived; it is probably a staunch Highlander's method of pronouncing of and writing the name of the local village, viz., Kamilpūr.

Abbottābād, however, runs true to form. It was named in 1853 after Major James Abbott, the first Deputy Commissioner of the Hazara District.

Beyond Abbottabad lie the *Gallies* ("narrow passes between mountains") and the road to Kashmir. The origin of this name is uncertain. "Mir," at any rate, means a particular part of a mountain, perhaps a valley or hollow; but the dictionaries are not explicit. What, though, does "Kash" represent? Some hold that it stands for Kashyapa, one of the seven sages of Aryan mythology. Others look upon him as the personification of a race, which is said to have infiltrated into Kashmir from the Caucasus (Qafkaz) by way of the Caspian Sea. One of the wives of Kashyapa was Kāsha, mother of demons, and in early writings we find mention of a tribe or race of Khas, which is described as "unspeakable," being degraded Kshattriyas. But Kashmir is nowhere spelt, as far as can be established, Khāshmir, or Khasmir, so perhaps the derivation from Kashyapa, though mythological, had better stand until controverted.

Dropping down the Indus, we pass the two well-known towns of Dera Ismail Khan and Dera Ghazi Khan (D. I. K. and D. G. K., for short). Originally there were three, the third being Dera Fateh Khan. *Dera* means a "camp or lodging place," and the places were founded by three Baluchi chiefs. The district in which they are situated is known as the Derajāt. Derajāt is simply the Persian plural of *Dera*.

Multan is another ancient city, which is said to have been the home of a tribe known as Malls; '-tan' stands for '-sthān' (place), the Sanskrit equivalent of the Persian termination "-istān."

In passing, we may notice that, in Baluchistan, Quetta stands for Kwatta: "fort", and Chaman is a "grassy flat" (or was).

Karachi is of comparatively new foundation, but its name is taken from a village called Kalachi Kun (the meaning of which escapes us).

From Karachi we proceed *via* the Ran of Cutch (*ran* means "desert" and *Kachchh* "sea coast land"), and Kathiāwār ("Gate to the sea-shore") towards Baroda.

Baroda is a corrupted form of "Wadodara" or "Watodar," and conveys the idea of "in the heart of the banyan trees," a very aptly descriptive name for the city. Baroda is another of the Indian States ruled by a Mahratta family, the head of which is known as the Maharaja Gaekwar. "Gaekwar" means "cow-herd" and is the Mahrati equivalent of "Gopal."

Broach, just south of Baroda, is the modern form of Bharuch or Bharukachha, which itself is a corruption of the original Bhrigu Kachha, "the field of Bhrigu". Bhrigu was a famous sage, held to be a son of Shiv.

And so back to Bombay, on the completion of our round trip.

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Standing apart from Indian place names, as far as their derivations go, are Darjeeling and the great mountain mass which looks down upon it, Kinchinjunga. Both names are Tibetan. Darjeeling means "Place of the Thunder-bolt" (*dorje*). To make it easier for us to follow, the Tibetans spell it "Rdo-rje-gling." Kinchinjunga is Kangchenjunga: "the Five Treasuries of the Great Snow," as those who have attempted to climb it will appreciate.

Sikkim is Sukhim ("New House"), and Bhutan is Bhot-āng ("limb or part of Bhot, *i.e.*, Tibet").

Then we must not omit mention of Nepal, the independent kingdom lying to the North of Bihar and the U.P., which is the home of the Gurkhas. Strictly speaking, Nepal is the name of the valley in which the capital Kathmandu (perhaps "Wooden Temple") is situated, but now it is used to describe the whole of the tract of hills ruled over by the Maharaja. Nepal is better spelt Nipal and is a contraction of Niyam-pala ("Observer of vows"), who was a sage, from which the valley derived its name. The Gurkhas are so called (we have already given the meaning of the word) from the village of Gorkha, in the Nepal Valley, from which the recent ruling class set out to subjugate the country, in 1768.

* * * * *

Finally, what of the English names on the map of India? Mention has already been made of two, but generally speaking there is little romance attaching to them, as they are those of trade centres or new cantonments, called after Viceroy or local officials, such as Dalhousie, Lansdowne, Montgomery and Daltongunj.

On the river Hooghli are the treacherous "James and Mary" sands. They derive their name from the tragic foundering on them of the "Royal James and Mary" in 1694, with terrible loss of life.

Cox's Bazaar is called after Lieutenant Cox, who was stationed there in 1799 to superintend the evacuation of Arakanese refugees from the Burmese.

Our tail-piece is Boileaugunge, the little village and bazaar, which nestles under the hill on which Viceregal Lodge, Simla,* is built. It is said to have grown up near the residence of the two brothers Boileau, who were reputed to have been somewhat (may we say?) eccentric. On one occasion, when the then Commander-in-Chief honoured them with his presence at dinner, the two brothers welcomed their gallant and distinguished guest awaiting him on each side of the porchway, both standing on their heads. Those were the days!

*No satisfactory derivation of the name "Simla" can be found. The name is, of course, properly "Shimla," and it refers to the side on which the town is built rather than to the town itself.

DEFENCE AND NATIONAL EFFICIENCY

By K. M. PANIKKAR

THE sixth year of the war sees the Indian Army expanded to continental proportions. Over two million men are known to be under arms, and this enormous army, the biggest ever raised in India, has been created on the basis of voluntary recruitment. Making every allowance for the low standard of general efficiency and the poor physical quality of the vast masses, it will still be conceded that only the fringe of India's manpower has been touched, and with an intensification of effort, it will be possible to raise even a much larger army, if required.

The question, however, is: Does the future defence of India require armies of this enormous size? Do the lessons of the present war and the trends which we can visualise justify the training and upkeep of armies whose numbers run into millions? The quantitative valuation of armies at the present time, when all warfare has to be on the qualitative basis of technical efficiency, and of complicated equipment, requiring intensive training, would seem to have become obsolete. The numerical strength of an army has to be carefully gauged and determined in terms of the nation's requirements, and not in terms of the nation's manpower potential.

The changed conditions of India's defence require no detailed analysis. The pre-war organisation of the Indian Army does not seem to have taken into consideration the possibility of large-scale operations against any first-class land power. Given the conditions that existed before the war, such a preparation was perhaps unnecessary. The N. W. Frontier and smaller countries which touched it created no major problems of defence. The great industrial strength and unrivalled national efficiency of England were at all times behind the Indian Army, and the absolute control of the seas that Britain enjoyed ensured an uninterrupted flow of officers and material.

These conditions have materially changed. The seats of dynamic political power have come much nearer to India's frontiers. The problem of the mastery of the sea has been complicated by the growth of air power, and the facile assumption of the 19th Century that communications between England and India have been permanently safeguarded by the mastery of the Mediterranean and overwhelming seapower in the Atlantic can no longer be maintained. In fact, the defence of India has to be conceived in terms of a campaign both in Europe and Asia, in which case, apart from the Navy being fully occupied in European waters, the airpower and geographical position of continental nations may at least for a time breach the lifeline between India and England. It follows automatically that all calculations in respect of a major war for the defence of India must be based on the mainland of India itself.

Has India the resources for undertaking that defence? Manpower and space power she has. She has a very large and comparatively intelligent population. In area she is next only to Russia, China and the U. S. A. She has the possibility of developing the industrial power necessary for modern warfare. In short, she has in abundance the raw material of defence. But manpower without *national efficiency*, and space without organisation, and industrial possibilities without their actual development give no strength to a nation. They are merely the materials out of which defence can be organised.

Space power and materials of production are God's gifts to a nation. A nation may have attained a high pitch of efficiency and may have a relatively great industrial strength like Belgium, but may not be able to organise its defence in the absence of space power. It may have space power and considerable national efficiency, but may not have the essential requirements of industrial strength. Again, all the natural conditions may be favourable; but, if national efficiency is low, effective defence is impossible. The case of China is one in point. It has enormous space and manpower, and the potentialities of great industrial strength. But, since national efficiency is lacking, her defence is a major problem for her allies.

The problem of India is similar. The essential question which those who are concerned with the defence of India have to face is the raising of the general standard of national efficiency. India can produce soldiers, but, if she is to have adequate resources for defence, she must not only have the industrial potential necessary to back up her army, but a people capable of thinking and acting in modern terms. Warfare to-day is not merely the conduct of military operations in the field, though it is and will continue to be the most important factor. Successful warfare both offensive and defensive includes numerous non-military factors; economic, psychological, moral, political and technological.

The economic factors are well understood. The psychological and moral factors, which constitute the unbreakable will of the nation, of which the most outstanding example in history was that of Britain in 1940-41, are now being recognised in their proper perspective as essential in modern warfare. Methods of propaganda, as well as forms of air attack, have made the morale of the civil population specially vulnerable in modern times. The attacks through the ether and the air can only be resisted by a population having a steady national purpose strengthened by unflinching civil leadership and by adequate preparation for purposes of moral defence. This again works back to the question of national efficiency.

Assuming that adequate armed forces of all kinds exist in India and their supply is assured, still the question of Indian defence in a modern war will not be solved unless (a) the civil population is integrated in some form with the army, (b) the standard of efficiency is raised on a much wider basis and (c) a national purpose is generated and strengthened among at least the educated classes.

The integration of the civil population with defence is the essence of modern total warfare. The preparation for this is the unavoidable pre-requisite of national defence. A classical example of this is what Russia did in the period before the war. The *Osoaviakhim* was the organisation which Stalin created in 1927 as a connecting link between the Red Army and the people. Originally it consisted of two organisations, *Oso* (for defence) and *Aviakhim* (for aviation and chemistry). After the two were merged, it was entrusted with the task of interesting the civil population in matters of defence. In 1931 it had a membership of eleven millions, and the members were not only kept informed of general technical developments but given instruction in military aviation, meteorology, gliding, parachuting and numerous other subjects directly connected with defence.

What helped Russia in her magnificent feat of national defence in 1942 and 1943 was this preparation of the civil population and the high standard of efficiency reached by them. Though British methods are less spectacular, they are no less effective.

An organisation like the *Osoaviakhim* postulates widespread literacy and a higher standard of general efficiency. That is why the question of education becomes essentially a defence problem in India. In the period before 1939, it was perhaps possible to argue that an inert mass of population helped to maintain the military hold on India and, as the external problem seemed unimportant, national education had no concern with the Army. To-day the position is fundamentally different. Recent developments have placed India near enough to great Powers to make the problem of external defence important not only for Britain but *vital for India and Britain*. The preparation of the Indian people for such a contingency becomes, therefore, the essence of the problem. As a result national education has become a matter of immediate concern to the army and defence forces.

I have purposely used the word *national* education, because, apart from increasing efficiency, unless Indian education seeks to create in the youth a *national purpose and a sense of unity* which will stand the strain of modern warfare, its object will not be fully served. A perception of this fundamental idea at the time of the Japanese crisis led to the establishment of the National War Front. But for the success of such an idea, the political factor, which makes defence a national interest, was necessary and in the present circumstances of India that could not be wholly ensured.

If we postulate a political settlement in India, defence automatically becomes the primary national consideration. The present unreal attitude of nationalist thought towards defence is not only bound to be replaced by a sounder appreciation of facts, but perhaps may lead a national government to the other extreme of Chauvinism. The satisfaction of national claims will, therefore, only give increased emphasis to the requirements of defence and is necessary in any case if a national purpose and a sense of national unity are to be the moral inspiration for defence.

The present war has altered the character of Indian defence. In the first place, it has extended the geography of defence so far as India is concerned. The outer rim on which India's security was based—the Ring Fence system—inherited from the Company must now, with the increasing range of modern weapons, extend beyond the buffer States of Curzon.

Secondly, the preponderating importance of air supremacy has given to the great land-mass of India a strategic significance which no one can fail to appreciate. India is ideally situated for the air control of her rim area. But air control is not merely a question of having large aerodromes and a powerful air force. It is a question of continuous scientific research into aeronautics, production capacity of industries, large reservoir of technical personnel and, above all, a continuous supply of trained officers and men.

The experience of the present war has shown that air superiority *over a long period* can only be maintained by a State which has at its disposal the best research minds (for the evolution of better types, for counteracting the enemy's new devices, etc.), the greater production capacity depending on a stable industrial structure, and an unceasing flow of vigorous young men with a high standard of technical ability. In fact, air superiority can only be the reflection of superior national organisations and efficiency. To a large extent it is the same with all forms of technical warfare, but the obvious preponderance of the air arm in future warfare and its demands on the nation raise these to the level of fundamental considerations.

The question of national education meant to raise physical and efficiency standards becomes, therefore, an emergent question for those interested in defence. Civilian authorities may think of long-period policies, but the call of security cannot await the gradual realisation of ideal plans. Within the course of the next 10 years, large-scale results will have to be obtained if the new army and defence forces which, after the war, we shall be raising in India, are to have the necessary national background. The questions relating to the encouragement of scientific research and industrial development are already under consideration. But the general standard of education, which is no less important, cannot be left to be worked out on a 40-year basis. It is essential in the interests of security to have a short-term programme meant to raise the efficiency of large classes of young men. This, to my mind is the crux of the problem of defence.

How is this to be done? Three parallel methods could be suggested. First, to begin with the masses, a definite programme of mass education through the demobilised soldiers should be taken up immediately. The large volunteer army that has been recruited in India is drawn from all parts, and the men with five years of training in the army meant to raise their standards all round, constitute an ideal body through which mass education can be undertaken. A short pre-demobilisation course for selected young men in the different aspects of national welfare will give them the training and the impetus necessary for this work. Their activities will be spread all over India and, with effective guidance, they could be made the backbone of national regeneration.

Secondly, in the high schools, organisations like Youth Movements with a definite bias, military formations, uniforms, etc., should be encouraged. The idea should be to make young men disciplined. The present Scout Movement should be reorganised and put definitely on the basis of a pre-military training of youth. The difficulty of the Scout Movement in India is that it is vaguely romantic, humanitarian and not quite serious. Reorganised, it should be the basis for the Officer Training Institutions and University Training Corps which should be attached to every college.

Thirdly, an effort should be made to interest the students of our universities to take an interest in both the Officer Training Corps and in semi-military organisations. Aviation clubs, automobile clubs, etc., should be attached to universities, and students should be encouraged to join them.

Thus from the lowest to the highest courses of education, there should be a regular interest created in the problems of defence. Such a programme, if steadily pursued during a period of 10 or 15 years, will create the necessary psychological and moral background on which the future defence of India can be based. It will also create a much wider field of technical efficiency upon which defence services could draw in times of need. And without such a programme the mere increase in the number, equipment and training of the army or the perfecting of the military machine will not solve India's problem of defence.

WITH THE INDIAN SOLDIER TO-DAY

BY MAJOR F. YEATS-BROWN, D.F.C.

I WANT you to see the Indian soldier at work in action. So I am taking you over to Burma; by bomber over the plains of Bengal and over the Himalayas to Imphal, from Imphal by "jeep" along the road to Tamu, and beyond there to a camp overlooking the Chindwin Valley.

Along this Imphal-Tamu-Chindwin road there are thousands and thousands of vehicles, mostly driven by Indian drivers. A year or two ago these lads were twisting a bullock's tail. Now they are at the steering wheel of a three-ton truck, negotiating hairpin bends on a mountain track for ten or twelve hours at a stretch, often at night, and sometimes under fire, and always in clouds of dust—dust which is sometimes a soft white powder and sometimes red—worse than anything in the Western desert.

Some of them are good drivers, and others not so good. But considering how little tradition of the machine exists in India, it is a miracle—nothing less—how well and eagerly the youth of the country has taken to mechanization and technical trades.

All over India I have seen these boys at work, aircraftmen, drivers, engineers, road builders, and so on. They are going to be invaluable to the national life when peace comes; they are invaluable now, handling every sort of instrument of war, from a truck to a telephone, and from a bulldozer to a dive-bomber.

Now we have arrived at the heights overlooking the Chindwin Valley. It is a Gurkha camp we are visiting and, of course, it is impossible to speak of this front without mentioning the Gurkhas. They are everywhere ubiquitous, though generally invisible. We are in a thick forest, on a mountainside overlooking the Chindwin River. The enemy is on the east bank, and we are on the western heights, at battalion headquarters. There must at least be five or six hundred riflemen all round us, but there might be only a platoon for all we can see of them. . . .

An orderly takes me to a bamboo hut, and brings me a half-basin of water. Water is a great luxury, for it has to be brought up on mule-back from two miles away. After washing off the dust of the Imphal road I am taken by the orderly (for otherwise I should never find my way) to a bamboo mess tent, to dine with the officers at a bamboo table. The Gurkhas are past masters in making huts, beds and tables with their *kukries*. Within a few hours of reaching camp they have cut down the necessary number of bamboos, built themselves

MAJOR FRANCIS YEATS-BROWN died in December last, but his affection for the Indian soldier was such that he never lost an opportunity of praising him. This article, part of a paper he read before the East India Association in London following a tour of India and the Burmese front, was probably the last time he was able to pay public tribute to the Sepoy he loved and admired so much. MAJOR YEATS-BROWN joined the Indian Army 40 years ago, transferred to the Royal Flying Corps in the last War, and won the D.F.C. Later he turned to journalism, was at one time assistant editor of "The Spectator," and wrote several books, the best known being 'Bengal Lancer'.—ED. U.S.I. "Journal."]

everything they want and then vanished into the jungle. Everything is hidden—men, ammunition, food, equipment: and unless you know your way about you would imagine you were in virgin forest.

That night I lay on my bamboo bed and listened to a sound like rain, and the distant barking of deer. The jungle is full of game, as well as of insects; elephants, bear, tiger, wild boar and the wild ancestors of our English hen. Also of Japanese. Presently I got up, to find out if it was really raining. It was not, but the dew was so heavy that drops of water hung on each leaf and shrub. They told me afterwards that the sound I had heard was the rustling of the leaves of the teak trees; it sounds exactly like a heavy shower. Later I woke with a start, wondering whether the Japs were attacking, for riflemen were moving swiftly and stealthily into their slit trenches. But it was only the stand-to, carried out in absolute silence, an hour before dawn.

There below me was the Chindwin Valley, and a streak of white mist shining in the full moon. The river was invisible under the mist, and the Colonel told me that patrols from both sides were always able to return from the night's work under its cover. After breakfast I was taken round the defences: a series of strong-points and sentry-posts, cunningly designed to support each other, and guarded by wicked-looking hedges of bamboo spikes. I should hate to have to attack the Gurkhas. Sometimes I think we take them too much for granted. I can't give you the exact figure, but I believe that there are some 40,000 of them in our ranks to-day, and, in addition, the Prime Minister of Nepal has sent some 8,000 of his own troops to India. We should remember with gratitude and admiration what this small mountain kingdom has done for the Allied cause.

I think the best tribute to the Gurkhas comes from Professor R. L. Turner, the distinguished scholar, who used to be adjutant of the 3rd Gurkhas: "Bravest of the brave, most generous of the generous, never had a country more faithful friends than you."

On my way back to Tamu I passed some 20 elephants, building a road-bridge. There are hundreds of them working in the Tamu Valley, but my conscience won't allow me, when I have so much to say about soldiers, to speak in detail about these intelligent animals; just one thing, however, may be said—the elephants, as far as I know, are still there, waiting for their mahouts to come back. When we made our long withdrawal in 1942 they were turned loose in the jungle, and left to shift for themselves, which they are well able to do. The Japanese couldn't catch them, because they will only come when they are called by their own masters.

Tamu is one of the most unpleasant places in the world—hot, unhealthy, full of snakes and inches deep in dust when it isn't a quagmire of mud. Also, the mosquitoes must be seen to be believed. I lunched in Tamu with the 1st Patiala Regiment. The men are all five feet 11 inches, or over; the finest lot of Sikhs I have ever seen. I may here mention that they are commanded by a veteran leader who has won great renown in this campaign, and who can still march 40 miles with his men in 24 hours, though he is nearer 60 than 50.

I met several other units from the Indian States Forces, and I wish I had time to tell you of the great contribution to the war made by the Rulers of the Indian States—but it would require a lecture by itself. They came forward splendidly in the last War, and it has been the same to-day. It is a page in the history of the British Empire which future generations will read with great pride.

Before leaving Tamu I also visited a Madras battalion. You will agree that the standard set by a crack battalion of Gurkhas and a crack battalion of Sikhs is pretty high. Well, these Madrassis, who have been raised since the war, are smart by any standard. I don't want to use too many superlatives, or to repeat what their enthusiastic Colonel said about them, but I can say this, that everyone in the Indian Army who is in a position to know will tell you that the Madrassi is a good fighting man, not only in the famous Madras Sappers and Miners, but in the infantry, and in pioneer and labour units everywhere. At the Ngakyedauk Pass in Arakan, when a division was surrounded by the Japanese, and isolated on the wrong side of the pass, the Madras pioneers fought like tigers.

Now let's take a quick look at the Arakan, flying over from Army Headquarters with the morning paper, the excellent *SEAC*, which has done so much to make British troops feel they are not forgotten at home. We land somewhere south of Chittagong, at the aerodrome of a Hurricane Recce. Squadron—known as a "Tac R. Squadron"—entirely composed of Indian pilots and aircraftmen, and commanded by a burly young giant of a Sikh, Squadron-Leader Mehar Singh. He was awarded the D.S.O. for his daring reconnaissances over this difficult country. If you had flown, as I have, over that vast tangle of trees and mountains, without a single distinguishing feature for miles, I am sure you would agree that anyone who can find his way about, let alone spot Japanese troop movements, deserves a decoration.

There were 40 Indian pilots in the R. A. F. during the Battle of Britain. Most of them are now back in India with squadrons manned and officered entirely by Indians. One of them is Flight-Lieutenant Sukthanker, who holds the coveted Path Finder Badge as well as the D.F.C. How many of us know that it was this young Mahratta Brahmin from Bombay who some time ago led some of our great raids over Hamburg, Munich and Berlin?

I would also like you to meet Wing-Commander Suboto Mukerji at Kohat, which is an important sector of the air defence of the North-West Frontier. Mukerji is, of course, a Bengali. He commands the units of the R.I.A.F. there; in all about 50 officers (British as well as Indian) and about 1,000 aircraftmen. He took me up from Kohat to Miranshah in his old two-seater Lysander: an exhilarating trip with plenty of fresh air in the observer's seat. The last time I went to Miranshah was 36 years ago, before Mukerji was born—and there, in the mess-room of the fort at Miranshah, I found my name in the visitor's book, dated August, 1908. I had tea with the Tochi Scouts, who were still conducting a private war of their own, just as they were when I was young.

We used to think we were pretty quick off the mark after raiders when I was a troop leader in the 17th Cavalry on this North-West Frontier; but Mukerji convinced me that things have speeded up since then. He pressed a button in his office and a hooter sounded. A party of aircraftmen doubled out to the aerodrome and started up the duty plane. Simultaneously, the duty pilot came running into the office with map and helmet and goggles. If this had been a real alarm he could have been briefed in a few seconds. Mukerji showed me the indexed maps and the catalogued photographs: all that was needed was to give the pilot whatever information had been received, and suitable maps and photographs.

Off he went. His ground crew were holding his parachute harness ready. The engine was warmed up. Within three minutes of the alarm sounding he was airborne. A few minutes later he might have been reporting the movements of raiders on his radio-phone, or shooting them up.

Well, we have travelled in rather a breathless fashion from the borders of Burma to the borders of Afghanistan. Now we must retrace our steps more slowly. First to a parachute-jumping school, somewhere in the Punjab. Here we are, in a big transport plane, with 20 young Jats, each with his parachute and crash-helmet. They are bubbling with high spirits, laughing and joking, and shouting their battle-cry: "*Hanuman ji ki jai!*" The laden plane drones off, and presently—about half an hour later—the pilot switches on a red light, and the Jumpmaster gives the order "Prepare for Action." Our target lies ahead: a white circle in an open field.

The men form a line along one side of the plane and hook up their parachutes. The door opens, and the leader, a havildar, makes ready to jump. Lots of our troops have jumped of late. But think of the gulf that separates a Punjabi peasant, worshipping the great god Hanuman, with his monkey's face, and this scene of parachutists in their harness, carrying all the latest weapons of war, and about to hurl themselves into space. There they go: a group of white parasols, swaying and swinging in the sunlight. You who know India and the Indian village will realise how time is marching on, and what changes must come over the land.

Let us return to the infantry, however, for, after all, it is the P. B. I. that wins battles. I saw many Training Centres in India, and found assault courses and battle-inoculation courses being run much as they are at Home, but of course under far greater difficulties, when one remembers how much an Indian recruit has to learn which an English boy knows already. Take language. Sometimes he can't speak Urdu, and must learn that before he can be taught much else. And often he must even learn how to wear a pair of boots, having always worn sandals before.

Then there are the obvious difficulties of staff, when expanding an army of 160,000 men into an army of 2,000,000. It was the same in the last War, but there were 1,000,000 volunteers then, instead of 2,000,000. It has been difficult enough to find instructors, but India was also short of equipment, for she came low on the priority list when there were so many other desperate needs to be supplied in Egypt, Russia and in Britain itself. I need not labour these points; but we ought to be very, very grateful to the men who wrestled with this gigantic task on the spot, training hundreds of thousands of boys in the heat and dust of the Indian plains, when they must have been longing to be at the front. They will have contributed to the victory just as much as the men who fought the battles.

Here I should like to answer a question which an American friend put me. He said he had met some of our recruits in the Indian Army and he thought them a fine bunch. "But why aren't there more of them?" he asked. "You say 2,000,000 is a great number of volunteers. All right. Granted it is the biggest volunteer army ever raised; still I ask why you shouldn't get 4,000,000 or even 8,000,000 soldiers out of India's population of nearly 400,000,000?" Well, to begin with, the intake of volunteers must be conditioned by the numbers we can equip and supply. But there's also another reason. India would starve if her people were mobilized for total war. You couldn't take many more men off the land without ruin, because she is not yet a mechanized nation.

But she is becoming a more mechanized nation, as I have already said. I wish you could have seen an Indian Armoured Corps recruiting team, which was touring the Jullundur District. It was a sort of travelling circus of tanks, to accustom the people of India—particularly the yeomen who used to send

their sons into Indian Cavalry regiments—to the idea that the days of cavalry are past, and that now they must become armoured-fighting-vehicle-minded.

The enthusiasm was immense. About five thousand people had come from all the near-by villages. There were three tanks in the display, also a couple of armoured cars, and two carriers.

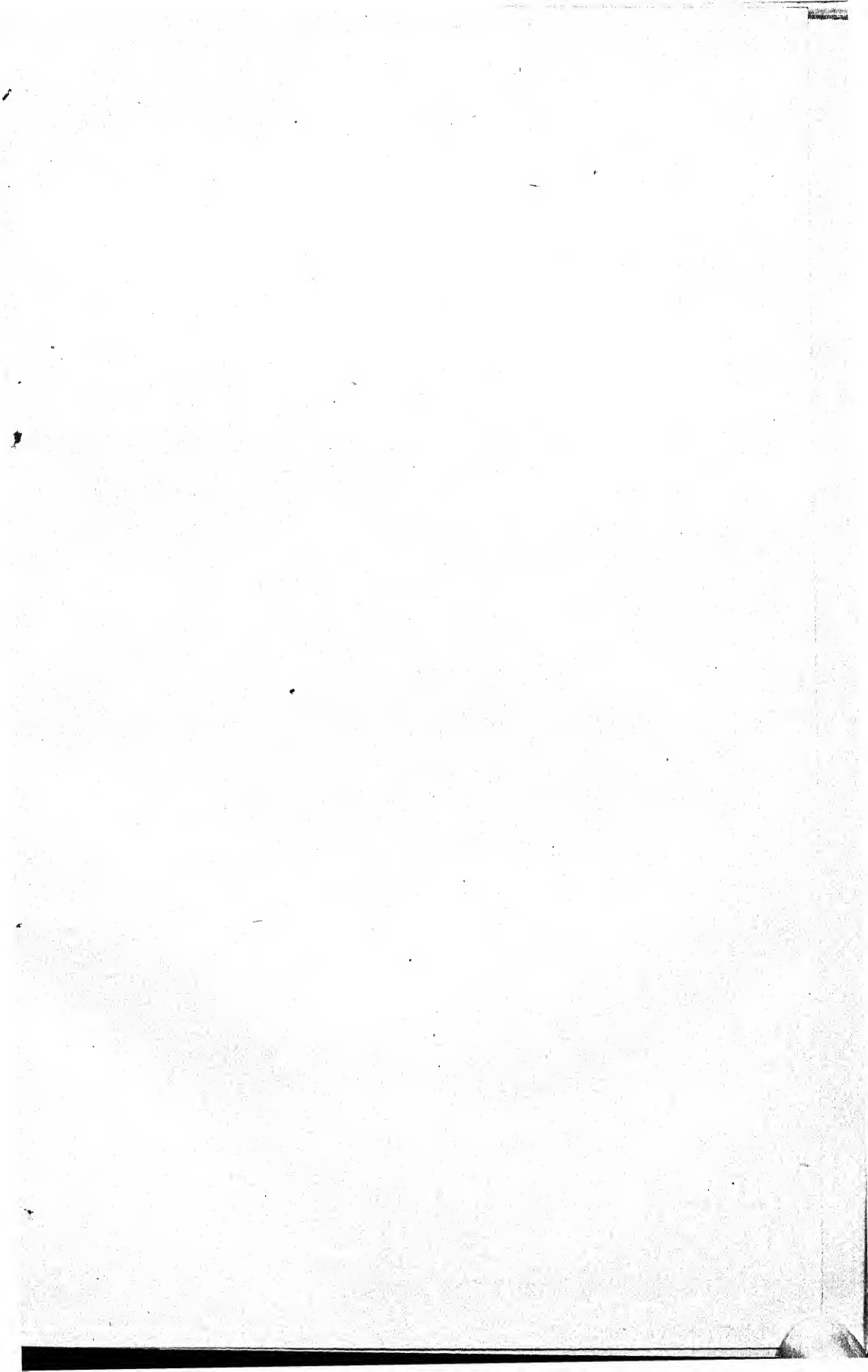
When I arrived an I. A. C. havildar was lecturing the crowd on the points of a Stuart: its weight, how much it cost, and so on. It seemed to me a bit technical, but evidently the people liked it, for they were listening with great attention. There were some women there, too, in a group by themselves, a hundred yards off, listening to a woman lecturer. They made a brilliant patch of colour in their *saris*. It was a strange scene, if you come to think of it: the crowd of women—*Jatnis* and *Rajputnis* and Sikhs and Muslims—all swarming round a large tank.

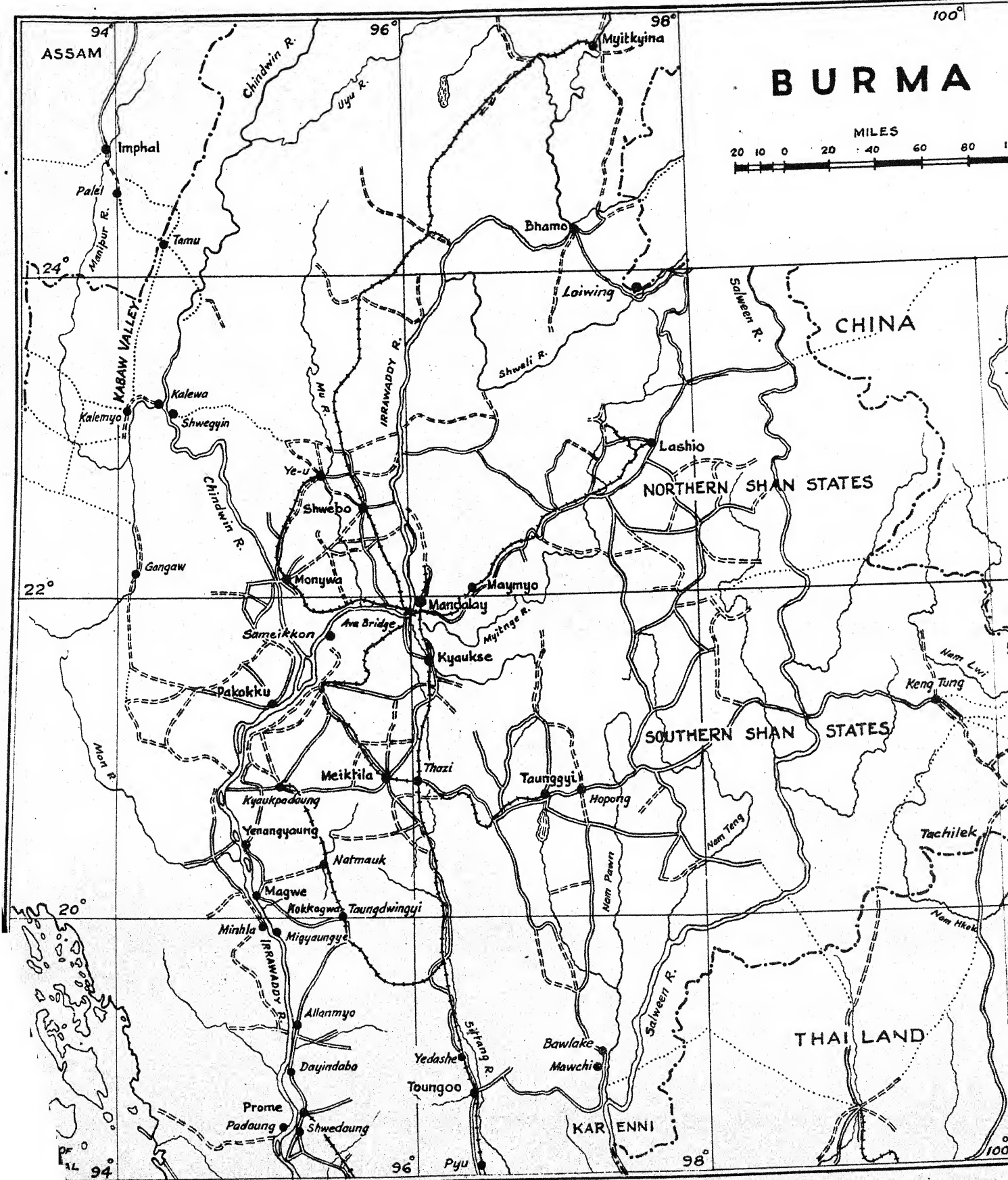
These Punjabi girls and matrons asked the most intelligent questions about the speed and fire-power of tanks. They wanted to know everything about the vehicles in which their relations were going to fight. And the lecturers—two Muslim ladies who had volunteered for the job and who had been touring with the team all through the cold weather—answered all questions pat. There was nothing about fighting vehicles they didn't know.

Another novel feature in Army life in India is the rise and growth of Boys' Training Battalions. Every Training Centre has one, including the artillery and engineers. The boys, 15 to 16-year-olds, are paid Rs. 10 a month. They get Army rations and extra milk and an excellent education. By the time they reach military age they have filled out into smart young soldiers and, after a two-month course at their Training Centre, they can generally be drafted straight to a unit in a Training Division. I am sure these Boys' Battalions are not only valuable in war, but a wonderful school for citizenship.

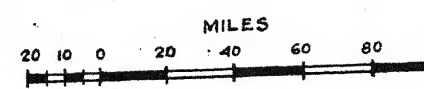
Boxing has become very popular among the boys. In my day people would have held up their hands in horror at the idea of letting, say, a Sikh fight a Muslim. Nowadays the lads of all three creeds hit each other just as hard as if they were all Christians, and no harm is done. In fact, a great deal of good is done. I attended a boys' boxing tournament at Jhelum, at which the Commander-in-Chief was present with his old regiment, and I have never seen better bouts. After the show, at about one o'clock in the morning, General Auchinleck made a speech in Urdu. You should have heard the cheering! There has not been such a popular C.-in-C. in India for a very long while.

Will members please note that letters for the Editor of the "U.S.I. Journal" should be addressed in future to Major H. C. Druett, Editor, "U.S.I. Journal," University Camp, Old Delhi. Communications concerning subscriptions and requests for books from the Library should be sent as in the past to the headquarters of the Institution in Simla.





BURMA



ASSAM

94°

96°

98°

100°

Imphal

Palel

Tamu

Bhamo

Loiwing

CHINA

Kalemya

Kalewa

Shwegyin

IRRAWADDY R.

Shweli R.

Salween R.

Lashio

NORTHERN SHAN STATES

22°

Gangaw

Shwebo

Monywa

Maymyo

Mandalay

Sameikkon

Ava Bridge

Kyaukse

Pakokku

SOUTHERN SHAN STATES

Meiktila

Thazi

Taunggyi

Hopong

Kyaukpadaung

Yenangyaung

Natmauk

Magwe

Minhla

Migyaungye

Nokkagwa Taungwingyi

Allanmya

Dayindaba

Prome

Padaung

Shwedagun

Yedashe

Toungoo

Bawlake

Mawchi

KAR ENNI

THAILAND

Tachilek

Nam Nhek

Keng Tung

Nam Lwi

Pyu

98°

100°

94°

THE FIRST BURMA CAMPAIGN—II

BY COLONEL E. C. V. FOUCAR

THE lull following our evacuation of Rangoon was broken towards the end of March, the new phase being marked by the destruction of our small air force, the Japanese capture of Toungoo, and our local offensive south of Prome and subsequent withdrawal from that town.

On March 21 our aircraft fought a magnificent action, destroying nine enemy fighters in combat and sixteen aircraft on the ground at Mingaladon. Japanese retaliation was swift. Within 24 hours a series of devastating raids on Magwe had virtually wiped out our own force.

Thereafter hostile aircraft ranged freely over back areas, systematically bombing Mandalay, Thazi, Maymyo and other important centres, and thus increasing the disorganisation of essential public services. Loiwing, the airfield on the Chinese frontier north of Lashio, was made untenable by the enemy. Although the shortage of aircraft was acute, a handful of our machines subsequently did what was possible from distant Indian bases.

Meanwhile the Japanese 33rd Division was advancing up the Irrawaddy valley. The 55th Division massed before Toungoo, and by an encircling movement on March 22 isolated the single Chinese Division holding that town. The Chinese had made elaborate defensive preparations and, despite the firepower of a Chinese division only being equivalent to that of a Japanese Regiment, they held their ground.

Attempts to reinforce the garrison failed; the enemy broke into the town and was repulsed after heavy street fighting; aircraft repeatedly bombed the gallant defenders. Relief failing, on March 29 the Chinese fought their way out to re-establish a line south of Yedashe. With the capture of Toungoo the Japanese secured intact the Sittang river bridge giving access to the important road through Karenni to the Shan States. The significance of this will later become apparent.

To relieve the pressure on Toungoo, BURCORPS had been directed to launch a local offensive from Prome, the first objective being Paungde. A striking force comprising the R. H. A. BATTERY and 7TH HUSSARS, and the much depleted battalions of the WEST YORKSHIRES, GLOSTERS (already observing Paungde), DUKE OF WELLINGTONS, and CAMERONIANS began to move south on the evening of March 28, the attack being planned for the next day.

However, on the morning of March 29 the enemy was also at Padigon, off the main road but on the railway six miles north of Paungde. This indicated an outflanking march against Prome, and the greater part of the striking force was diverted to counter this threat. Repeated attacks by the CAMERONIANS, and a squadron of the 7TH HUSSARS made considerable progress, but did not reach Padigon. Although inadequate for the purpose one company and two platoons of the Duke of Wellingtons with a squadron of tanks operated successfully against Paungde, killing numbers of the enemy, who was continually reinforced. In the afternoon the attack was called off.

It was known that the enemy, who had advanced up the east bank of the Irrawaddy, was now astride the main road at Shwedaung, behind the striking force which turned back towards Prome to fight one of the fiercest encounters of the Campaign. The 12TH FRONTIER FORCE REGIMENT, 13TH FRONTIER FORCE RIFLES and a battery were already attacking Shwedaung from the north. They

inflicted heavy punishment on numbers of Burmese rebels, but could not penetrate beyond the northern outskirts of the town, which ran for more than a mile along the east bank of the Irrawaddy.

Advancing from the south the striking force after nightfall encountered a block about two miles south of Shwedaung. Guns and tanks cleared this, but on the southern edge of the town was another block in a patch of jungle. This was strongly defended and could not be forced, and at 0200 hours on March 30 it was decided to await daylight before making a further attempt on it.

The same night a serious incident occurred at Padaung on the opposite bank of the river. An enemy column was moving up that bank, and to oppose this movement a Commando force with Royal Marines occupied Padaung. Treachery by the inhabitants is suspected, for during the night our force was surprised and destroyed. Enemy reinforcements then and next day crossed the Irrawaddy to reinforce Shwedaung.

Early next morning the striking force resumed its attack. The Japanese, strongly posted round the block and in a nearby rice mill, fought doggedly. Molotov cocktails were used against our tanks, our infantry met stern opposition, and it was more than three hours before we entered the town. Here the enemy manned other blocks.

Our transport sought diversions, but accurate mortar fire wrecked tanks and many vehicles, thus closing side streets. Every yard of progress was bitterly contested. On the flanks the advance was more rapid, but did not assist the extrication of the transport. In the afternoon hostile aircraft repeatedly bombed our line of stationary vehicles. Shwedaung was burning; the rearguard was in contact with fresh enemy units coming up from the south; our relieving force to the north had not advanced.

A last effort was made to save the transport. The tanks found a new diversion, but in face of mortars and machineguns few unarmoured vehicles got out. The remaining transport was then abandoned, and our infantry battled through the burning town. Every Battalion had suffered heavily, and we lost in Shwedaung eight tanks and two guns. The counter-offensive had achieved little beyond demonstrating the splendid fighting qualities of British units.

Following on the loss of Toungoo and the action at Shwedaung, it was decided to regroup BURCORPS in the Allanmyo area and, if necessary, to fall back further north where the country was more suitable for tanks. Burma Division was concentrating near Allanmyo, one of its Brigades being moved across the Irrawaddy to watch the west bank. In Prome were considerable quantities of grain and other supplies. It was important to remove these; but Japanese aircraft were active and road convoys had to run by night. By ill chance the river was abnormally low and night navigation therefore dangerous.

Before the back-loading of stores was complete the Japanese attacked Prome on the bright moonlit night of April 1. A Brigade of 17th Division held a perimeter round the town; the other two Brigades were in position to the east. The Japanese broke into Prome from the south and, attempts to restore the situation having failed, our Brigade was withdrawn east of the town. Farther to the east a wide turning movement by the enemy was smashed by a small flank-guard and the GURKHA BRIGADE. In each case large bodies of Japanese unaware of our positions approached in close formation to be dispersed by heavy fire.

It was thought next morning that an enemy force had thrust north from Prome towards Dayindabo. Accordingly, 17th Division withdrew to intercept this move and establish contact with Burma Division. The hot weather had begun, and the hurried march along a dusty road through waterless jungle was most trying. There was no air support.

Towards evening, as Dayindabo was neared, Japanese bombers attacked the column. Further air attacks were made next day when 17th Division fell back towards Allammyo behind Burma Division. Shortage of motor vehicles and the difficult country had now caused some Brigades of BURCORPS to adopt animal transport.

The withdrawal continued, and by April 8 BURCORPS was on the general line Minhla—Taungdwingyi covering the oilfields. This front was over 40 miles in length, our defence consisting, roughly, of a series of widely-spaced Brigade posts with a thin forward screen furnished by Burma Frontier Force units. The centre Brigades supported by the Armoured Brigade were intended to act offensively but our force was again inadequate for its task, and the defence had no depth.

The long gaps between Brigades were a serious danger. So, too, was the fact that our main line of communication, the road from Taungdwingyi to Magwe and the Yenangyaung oilfields ran parallel to and close behind our front. The Japanese were not slow to exploit this situation. Ignoring Taungdwingyi, held by us in force to cover Mandalay and the right flank of the Chinese then fighting south of Pyinmana, they thrust direct for the oilfields. On April 10 our forward screen was in contact with their patrols. Next day the two Brigades about Kokkogwa and Powe, respectively 11 and 18 miles west of Taungdwingyi, were in action.

Space does not permit a detailed description of the operations of the next few days, but the defence of Kokkogwa was noteworthy. With a troop of tanks and a Field Battery (less one troop) the GURKHA BRIGADE held a perimeter round Kokkogwa and an adjoining village, whilst the remainder of the Armoured Brigade was in leaguer about two miles away. After nightfall on April 11 a general attack was launched on the Kokkogwa position. It was intensely dark and a thunder storm raged, lightning flashes illumining the black night.

Breaking through on the south the Japanese penetrated to the area of Brigade Headquarters: a counter-attack by the scanty reserve threw them back. Then they broke in from the west. Reaching the guns they were repulsed, the guns being swung about to shell them point-blank. All night the situation continued critical. At Brigade Headquarters the officers stood by to fight as a bombing squad.

Towards dawn the enemy drew off. A lively counter-attack by the 4th GURKHAS and ROYAL TANK REGIMENT then cleared the area and accounted for many more Japanese. The ferocity of the night's fighting was everywhere evidenced by the enemy dead; but we, too, had suffered severely, and the perimeter had to be shortened. The Brigade, however, was in fine fettle.

On the night of April 12/13 the enemy attacked again, but lacked his previous dash, and nowhere broke our line. Next morning, despite heavy bombing by aircraft which set Kokkogwa alight, we took the initiative. Our fighting patrols went out and dealt successfully with the Japanese in surrounding villages.

Meanwhile, there were actions round Powe and Migyaungye. Advancing up the east bank of the Irrawaddy the enemy took Migyaungye by a surprise attack, thus compelling us to withdraw to the line of the Yin Chaung, south of Magwe. This line was held by two weak Brigades of Burma Division, the 3rd Brigade remaining west of the Irrawaddy. With Burma Division was also the Armoured Brigade, less 7th HUSSARS. A Divisional reserve, MAGFORCE, comprising a Mountain Battery, the CAMERONIANS, and two Battalions of BURMA

RIFLES was in Magwe. Twenty-five miles to the east 17th Division with the 7th Hussars closed on Taungdwingyi and Natmauk.

Through this gap between our two formations enemy columns hastened by unfrequented tracks and dry stream beds for the Yenangyaung oilfields north of Magwe. Using native carts, assisted by Burmans, and probably often wearing Burmese clothing, the Japanese passed freely through the sparsely populated countryside. We received remarkably little information of their movements.

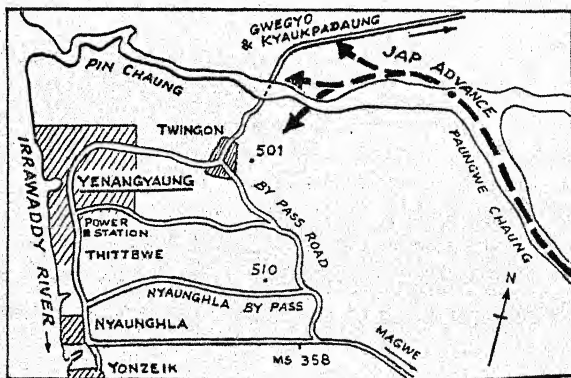
Throughout April 14, the K.O.Y.L.I., were attacked in an isolated position south of the Yin Chaung, eventually falling back after some severe fighting. On April 15 the enemy probed the Yin Chaung line, and at 0100 hours on April 16 assaulted the sector immediately east of the junction of the Chaung with the Irrawaddy. The 7TH RAJPUTS and a BURMA RIFLES Battalion were in the front line. Repeated attacks overran these Battalions before dawn. Another Battalion of BURMA RIFLES and the K.O.Y.L.I., now at a strength of about 200, were thrown in to cover the withdrawal of our transport and the forward troops.

Burma Division was operating in an almost waterless area, hence the next possible defensive line was that of the Pin Chaung immediately north of Yenangyaung and distant by road some 40 miles from the Yin Chaung. Magwe was therefore evacuated, and the Division fell back towards the Yenangyaung road. Water dumps had been established, but our troops suffered much from the intense heat. On the evening of April 16 Burma Division halted near the dry Kadaung Chaung, a long day's march south of Yenangyaung. Leaving one squadron to act as rearguard to the Division, the Armoured Brigade went on to the Pin Chaung.

The elaborate demolition scheme for the Yenangyaung oilfields had already been carried out, and by April 16 only the Power Station remained to be destroyed. Headquarters and one company of the GLOSTERS were in the town as oilfields guard, being armed only with rifles. So short were we now of weapons that their mortars and automatics had been made over to troops going forward.

The road to Meiktila and Mandalay, the only northern outlet from Yenangyaung, crossed the Pin Chaung by a difficult ford some three miles beyond the town. A section of heavy anti-aircraft guns and some Burma Frontier Force columns were on the north bank of the Chaung.

The leading vehicles of the Armoured Brigade crossed the Chaung at 2230 hours on April 16. Some two miles north of the ford fire was suddenly opened on the column of vehicles, and a blazing tank was quickly converted into a road block by the Japanese. Other bodies of the enemy seized the ford and Twingon village to the south.



At Twingon they blocked the road, then entered Yenangyaung. The handful of GLOSTERS fell back fighting, and the Power House was destroyed just in time. The Japanese appear to have approached the oilfields by way of the

dry Paunggwe Chaung, a southern tributary of the Pin Chaung. This route brought them unobserved to within easy striking distance of the ford.

North of the Chaung the enemy remained astride the road until dislodged next morning by the ROYAL TANK REGIMENT, a company of the WEST YORKSHIRE REGIMENT, and BURMA FRONTIER FORCE units, but he maintained his hold round the ford. That day our force north of the Chaung was reinforced by elements of the Chinese 38th Division, a formation of the LXVI Army then entering Burma.

Throughout April 17 the GLOSTERS, a company of SAPPERS AND MINERS, and the Employment Platoon of Burma Division, clung precariously to the southern fringes of Yenangyaung. The Division itself was hurrying north, but the heat and shortage of water were distressing, and enemy aircraft a continual harassment. It was not until late that night that the Division was concentrated in the area between Yonzeik and Milestone 358.

Water, now absolutely essential for men and animals, was obtained from the river, but rations were very short. Meanwhile, General Bruce Scott, who had arrived that morning ahead of his troops, had planned a general attack for first light on April 18. The only good road for transport was that through Yenangyaung, which therefore had to be cleared. It was arranged by wireless that our force north of the Chaung was to co-operate by securing the ford.

The southern attack was carried out by MAGFORCE and a Brigade. MAGFORCE, its left on the river, advanced from Nyaunghla towards Thittabwe, cleared the Nyaunghla by-pass, and gained the arid ridges to the north. Here the CAMERONIANS and BURMA RIFLES were stopped by the Japanese strongly posted on adjoining ridges and in solid masonry buildings. Neither our guns nor the few tanks available could dislodge them. By mid-afternoon we had made no further progress, and MAGFORCE then moved along the Nyaunghla by-pass to rejoin the rest of the Division south of Twingon.

The Brigade east of MAGFORCE had attacked astride the By-pass Road, won the ridge through Point 510, went on across the oilfields, and encountered stiff opposition south of Point 501 near Twingon. The Japanese counter-attacked, and were halted. Our own attack then progressed as far as Twingon, which throughout the day was bitterly contested. In this fighting the INNISKILLINGS, 5TH PUNJABIS and 18TH ROYAL GARHWAL RIFLES were all heavily engaged. The attack from the north of the Pin Chaung, partially successful, failed to secure the ford itself.

When it was apparent that the road through Yenangyaung could not be forced, the transport was taken north along the difficult and winding By-pass Road. That evening General Bruce Scott formed a perimeter south of Twingon astride the By-pass Road, and here all his troops and transport were concentrated. A very small quantity of water was found in some damaged oilfield pipes, but even the wounded were agonisingly thirsty, although they bore their sufferings without complaint. In the dark the enemy closed in on the perimeter, and early on April 19 advanced from the direction of Twingon. We broke up this movement, but after daylight heavy mortar and machine-gun fire was directed on our positions and on the massed transport.

Our attack on Twingon was then resumed. The INNISKILLINGS and 18TH ROYAL GARHWAL RIFLES again penetrated the village but could not clear the road block in it. The situation of Burma Division was fast growing desperate. Men were dying of sheer exhaustion. They had fought long on those sunscorched ridges. Without water it would be impossible to continue the battle, and unless

an alternative route for vehicles across the Pin Chaung could be found this meant the loss of guns and transport. However, General Bruce Scott was directed by BURCORPS over the wireless to hold on until an attack timed for 1400 hours had been made from the north by the Chinese.

Meanwhile a squadron of the ROYAL TANK REGIMENT with a company of the WEST YORKSHIRE REGIMENT had thrust south across the ford, and at about mid-day gained the south bank, where they met heavy opposition. At this stage the West Yorkshire Company was recalled, all available troops north of the Chaung being required to move to Gwegyo to meet a reported Japanese advance from Kyaukpadaung. In fact, it was Chinese troops who were in Kyaukpadaung. The untrue report had a vital effect on the Yenangyaung battle, as it enabled the Japanese to retain the ford at a critical moment.

A possible crossing place had been found higher up the Chaung and, as the Chinese had not attacked, Burma Division began to move north-east at 1400 hours. The transport came under gun and mortar fire, vehicles were knocked out, and the loose sand of the track soon brought the column to a halt. Vehicles and many guns had to be destroyed, but the progress made enabled numbers of the wounded to be evacuated. The Division marched on to the Chaung, crossing it about two miles above the ford. On the north bank the Division came under machine-gun fire, but otherwise continued its march unmolested. It was later withdrawn for a few days to rest and recuperate.

The Armoured Brigade and the Chinese 38th Division under General Sun continued the battle. The delayed attack opened at 1500 hours. Against heavy opposition it won the ford, and late that evening Twingon was entered from the north. Some two hundred British prisoners were released. Next day the Chinese with our tanks penetrated into Yenangyaung, fought off a counter-attack, and held their ground. On April 21 the Allied force withdrew north of the Pin Chaung.

The deep penetration by the Japanese 33rd Division at Yenangyaung presented a favourable opportunity for a counter-stroke by ourselves and the Chinese. Plans were discussed by Generals Alexander and Stilwell, but events in the Shan States prevented the proposed offensive. The Chinese VI Army covering the Shan States and Karenni was widely dispersed over an enormous front, and lack of transport and poor communications rendered speedy concentration impossible.

The Japanese, who had received considerable reinforcements early in April, hit at this weak line. Soon after their capture of Toungoo, and whilst maintaining their pressure on the Chinese V Army south of Mandalay, they sent tanks and a motorised column of their newly-arrived 56th Division along the road through Karenni to the Shan States.

The earliest stage of this advance was gallantly opposed by a small force of Karen irregulars, stiffened by Karens of the Burma Rifles, but by April 4 the Japanese were in Mawchi. The Chinese now took over the defence of the road. Between April 16 and 19 there was heavy fighting in the Bawlake area, where a Chinese Division was cut off and overrun. There was nothing substantial behind it, and the Japanese column sped north. By the evening of April 21 it threatened Hopong, and part of the column turned west for Taunggyi.

Both Lashio and the rear of the Chinese and Imperial forces south of Mandalay were imperilled. This latter danger was staved off by the vigorous action of General Stilwell, who detached and led somewhat more than a division

of his V Army to operate against Taunggyi. Here, on April 23 and 24, the Chinese attacked, eventually taking the town.

The situation in the Shan States was now very confused. Overcoming scattered Chinese forces the main Japanese column drove on towards Lashio, which fell on April 29. The only real line of communication with China was cut, and the Japanese were free to threaten our rear through Bhamo and Myitkyina or to sweep down on Mandalay. This advance, albeit against weak forces, had been a bold stroke brilliantly executed. Its effect was decisive on the whole front south of Mandalay.

General Alexander did not intend to abandon that city unnecessarily. At the same time, he had to consider the danger of fighting in the loop of the Irrawaddy with his back to the river. The Ava bridge, a few miles south of Mandalay, was the only crossing place for tanks and constituted a dangerous bottleneck.

When the Japanese advanced into the Shan States General Alexander planned to hold Mandalay with the Chinese V Army. The west bank of the Irrawaddy would be protected by the Imperial forces and the Chinese 38th Division, the Chindwin valley and the projected road from India through the Kabaw valley to Kalewa west of the Chindwin being also covered.

As the Japanese continued their rapid advance and became free to operate against the rear of our main forces General Alexander revised his plan. He decided to withdraw the Imperial forces towards Kalewa, which would afford a jumping off place for an offensive as soon as the road from India could be brought into use.

Work on this road had progressed slowly, despite the strenuous efforts of the P. W. D. Disorganisation of labour, shortage of tools, limitations of the Chindwin river route, refugee traffic, and the outbreak of cholera all contributed to this. Kalewa was linked with the area east of Mandalay by two routes. The Chindwin was the recognised line of communication. An alternative was the roughest of jungle tracks traversing the vast stretch of almost uninhabited forest east of the Chindwin. Starting at Ye-U north-west of Shwebo this track reached the river at Shwegyin, some six miles below Kalewa. The river had to be crossed by ferry to that town.

The decision to fall back towards Kalewa was made on April 26, on which date Advanced Army Headquarters moved from Maymyo to Shwebo. The future movements of the Chinese V Army were uncertain and dependent on orders from China, but it was intended that it should cross the Irrawaddy when forced out of Mandalay. Burma Division, crossing the Irrawaddy by the Sameikkon ferry, was established on the west bank by the evening of April 28. It was directed to march across country for Monywa. The Chinese 38th Division also crossed the river without incident. Meanwhile, 17th Division and the Armoured Brigade had fallen back on Meiktila to cover the withdrawal on Mandalay of the Chinese V Army, now a very battered remnant.

On April 25, 26 and 27 the Armoured Brigade and supporting infantry, operating round Meiktila, roughly handled advanced Japanese elements. On the first two days motorised columns were shot up with great success, and on the third day enemy tanks were engaged, one at least being knocked out. Whilst these actions were proceeding the Gurkha Brigade had taken up a rearguard position round Kyaukse. This was to be held to protect both the Chinese withdrawal on Mandalay and our final crossing of the Ava bridge. With the Brigade were the 7TH HUSSARS and a company of the WEST YORKSHIRE REGIMENT, guns, and demolition parties of the BENGAL SAPPERS AND MINERS.

Through Kyaukse run the road and railway to Mandalay, crossing the small Zawgyi river on the southern outskirts of the town. The river flows, roughly, in a north-westerly direction. East of the town and over-looking it, a steep ridge runs eastward. Our position covered the southern approaches to the town in a wide arc, the flanks being sharply refused. On the west were the 4TH GURKHA RIFLES, in the centre the 7TH GURKHA RIFLES were astride the road and railway, their left flank touching the river; east of the river the 5TH ROYAL GURKHA RIFLES continued the line to the ridge, the western end of which was included in the position and afforded an excellent gunner O. P.

Patrols were thrown out to the flanks. In reserve, north-west of the town, were the 3RD GURKHA RIFLES. Anti-tank guns and mortars covered a block across the main road. Fields of fire had been cleared, but there remained some dense jungle along the banks of the river. The Gurkha Brigade, a tired formation, was no more than 1,700 strong; in addition, the difficulties of the defence were much hampered by an acute shortage of signalling equipment. Communication was mainly by runner.

Throughout April 28 our tanks and forward patrols were in contact with the Japanese 18th Division, a crack formation from Malaya. Enemy tanks were in action. By evening the Japanese had reached our main positions astride the road.

The first attack developed at 2200 hours in bright moonlight. It was beaten off. Enemy vehicles then sought to cross the river by a diversion to the east, but our guns and mortars frustrated this movement. Two further night attacks were launched against the 7th Gurkhas. Each was repulsed at close range with heavy loss. At dawn our patrols and tanks cleared the front and flanks. Then, with artillery and mortar support, the 7th Gurkhas brilliantly assaulted a village in front of their forward defence lines. Over one hundred Japanese were killed, Gurkha casualties being three.

Throughout the day the Japanese guns were active but ineffective; and in the afternoon another infantry attack was attempted, only to be broken up by our machine-gun fire. Aircraft now took up the battle. Our troops were dive-bombed, but sustained no damage. At 1800 hours our withdrawal was effected precisely as planned. Protected by tanks the infantry retired, two road bridges across the river being blown. The railway bridge had already been destroyed. Contact was broken without interference from the enemy, our total loss at Kyaukse having been ten killed and wounded. A model rearguard action, the operation was well planned, gallantly fought, and perfectly terminated.

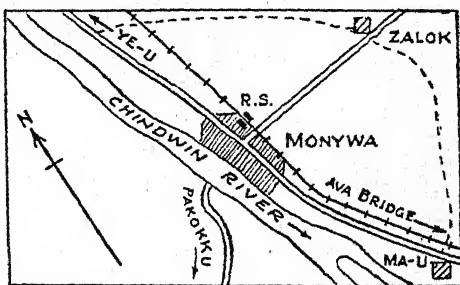
Next day, April 30, the last of our troops crossed the Ava bridge; and at 2359 hours the same night the bridge was destroyed. We had entered upon the final phase of the campaign. Shortly afterwards, the Chinese were forced out of Mandalay.

Abruptly the centre of interest shifted to Monywa, the key to the Chindwin. From here part of our force was intended to withdraw on steamers towards Kalewa, the remaining troops falling back along the track from Ye-U. For the moment, however, Monywa was almost unprotected. The Brigade of Burma Division that had always been west of the Irrawaddy had moved from Pakokku along the track to Gangaw and Kalembo; the other two Brigades marching across country from Sameikkon were not yet within striking distance of Monywa, although Divisional Headquarters was at Ma-U, four miles south-east of the town.

Without warning, on the evening of April 30, an enemy column from Pakokku appeared west of the river opposite Monywa. The enemy seemingly had accurate information of our movements and dispositions. Early next morning a party of Japanese and Burmese overran Headquarters of Burma Division, and only after a stout fight did General Bruce Scott and his staff escape.

Shortly afterwards the enemy crossed in strength to Monywa in his own powercraft. A scratch force of a few ROYAL MARINES, GLOSTERS, and BURMA FRONTIER FORCE opposed this move, then fell back northwards to protect the road to Ye-U. Our troops between the Ava bridge and Monywa were in an unenviable position. The Armoured Brigade hurried south from Ye-U; and a Brigade of 17th Division entrained near the Ava Bridge for the Monywa area. By the afternoon of May 1 it was in action round Ma-U where it was later joined by a Brigade of Burma Division.

Next morning Monywa was attacked by these two Brigades, one continuing the advance from Ma-U up the east bank of the Chindwin, the other carrying out a night march to the north-east to attack towards the river astride the road from Zolok village. Monywa, surrounded by an expanse of flat paddy land, was easily defended; and from buildings and other vantage points the Japanese stubbornly resisted our advance.



The Brigade from Zolok reached the town outskirts, where the railway follows a line parallel to the river. After heavy opposition the 1ST PUNJABIS carried the station only to lose it again. On their left the 18TH ROYAL GARHWAL RIFLES were held up short of the railway line. Accurate mortar and automatic fire prevented any further advance by this Brigade.

The Brigade attacking from Ma-U was also halted on the edge of the town. The 11TH SIKHS suffered severely round a road block, and could do no more than cling to hardwon positions. On their right the 10TH GURKHA RIFLES failed to penetrate the town. Two companies of the 13TH FRONTIER FORCE RIFLES reinforced the Sikhs; the 7TH HUSSARS attempted to force the block; but the situation was unchanged. The remaining Brigade of Burma Division arrived, and went forward from Ma-U to attack on the front occupied by the 10TH GURKHA RIFLES. The 4TH GURKHA RIFLES and 7TH RAJPUTS made excellent progress which threatened to outflank the Japanese along the railway and in the station. Parties of the enemy were observed hurriedly crossing to the west bank of the river.

It was now mid-afternoon. During the action our transport had carried out a circuitous cross-country march to the Ye-U road north of the town, and by this time was clear of the battle area. Brigades were ordered to break contact and withdraw north. A certain mystery surrounds the origin of this order; but as the transport was safe there was no particular advantage in continuing a costly operation. The river route being definitely closed, our sole line of withdrawal was the track from Ye-U to Shwegyin. Accordingly, our force round Monywa fell back towards Ye-U. At first, the enemy followed up this movement. There was some fighting, but the Japanese did not advance far.

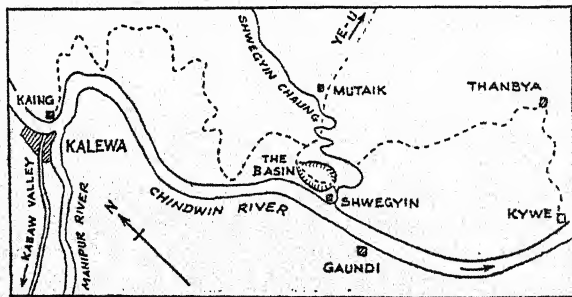
For a large and fully mechanised force, that winding 120 miles of track from Ye-U seemed impossible. Yet it had to be used. The monsoon was due to break and would immediately render the forests impassable for vehicles. We were racing both enemy and monsoon to Shwegyin. Innumerable dry stream beds of loose sand, a waterless stretch of jungle, a tortuous hill section, frail bridges were some of the obstacles.

Broken transport littered the route; but it was kept open by excellent administrative work, strict road discipline, and the efforts of the Engineers. Arrangements were made for petrol, rations, and water, and refugees were not forgotten. They rode in vehicles, whilst some troops made forced marches. Fortunately the deep forest gave concealment from aerial observation.

Near the Chindwin a gorge led to the Basin, a flat pear-shaped depression overlooked by escarped jungle-clad hills. Traversing the Basin the track passed through a gap to the river at the point where the Shwegyin Chaung joined it. At an improvised jetty, staff officers, officers of the Irrawaddy Flotilla Company, and Royal Marines toiled manfully at the slow work of loading vehicles and animals; but in the Basin and further inland, at Mutaik, transport and stores accumulated rapidly. Enemy aircraft soon located the activity at Shwegyin, and their attacks caused several native steamer crews to cease daylight work.

By the night of May 9/10 the greater part of our force had crossed to Kalewa. The tanks of the Royal Tank Regiment had been destroyed; but it still required several days to move all essential vehicles, guns and stores. At Mutaik was the rearguard of the 7TH HUSSARS, the WEST YORKSHIRE REGIMENT, and the GURKHA BRIGADE. There were also gunners, the whole force being commanded by General Cowan. Round the Basin and jetty two companies of the 9TH JATS covered the hills. Further south a Gurkha commando watched the river. At Gaundi, on the opposite bank, the 17TH DOGRAS protected a boom below Shwegyin. That night the 7TH GURKHA RIFLES moved into the Basin.

Unknown to our rearguard, on the evening of May 9 a considerable Japanese force with animals and guns was put ashore from fast landing craft at Kywe, eight miles below Shwegyin. The vessels, one of them flying the Burmese rebel flag, then sped away for reinforcements. Taking a circuitous route through Thanbya the Japanese marched for Shwegyin.



At dawn on May 10 they made a surprise attack down the defile of the Shwegyin Chaung. Reinforced by the 7TH GURKHAS the JATS prevented a breakthrough to the river; but the Japanese swarmed over the ridges round the jetty and Basin. At one point they entered the Basin, but were driven out by our troops, who made several counter-attacks across the precipitous hills. At this stage Bofors guns in the Basin gave the only artillery support.

Tanks and infantry from Mutaik hurried forward just in time to prevent the cutting of the track north of the Basin. Thereafter, picquets held the track

against parties of the enemy. Our guns at Mutaik were now in action. Clinging tenaciously to a knoll east of the Basin, the Japanese had direct observation for their mortar fire on the Basin and jetty. In the afternoon they got an infantry gun on to the knoll. A Bofors knocked it out. Mortar fire continued, our attacks failing to clear the knoll. There was bloody fighting in the jungle. Pressure increased on our positions; fresh enemy troops had probably arrived.

Although the jetty could not be used, officers of the Irrawaddy Flotilla Company kept some steamers working, casualties being embarked at the foot of a steep cliff higher up the river. It was evident that there could be no loading that night of vehicles and stores at the jetty, and so General Cowan decided to withdraw north along a hazardous path, traversing razor-backed ridges to Kaing opposite Kalewa. All vehicles, tanks, guns and much equipment must be sacrificed. The remaining wounded with non-essential elements were at once sent along the path.

At 1700 hours guns and mortars began wasting down ammunition. At 2005 hours they opened a final barrage on the hills round the jetty and Basin. Demolitions were carried out, and the infantry fell back. Their way lit by enormous fires at the Basin and Mutaik, troops and animal transport set out for Kaing. So difficult was the path that several hours elapsed before the tail of the column was clear of the gorge near the Basin. Not a few mules were lost; some slipped down sheer escarpments, others blocking the column had to be pushed from the path. Yet a Section of a Mountain Battery took its guns through. The Japanese made no attempt to renew the action. They had had enough. Before that final barrage nearly 200 of their dead had been counted in the jungle.

On May 11 the rearguard crossed to Kalewa. Maintenance difficulties made it impossible to hold that town, and General Alexander had been directed to withdraw on India. The march continued to Tamu and the Assam border. There was very little transport, men were weakened by dysentery and malaria, cholera was rife in the refugee hordes, and the monsoon broke on May 12. But the Army in Burma had fought its last battle. On May 20 General Alexander's command ceased to exist, IV Corps assuming operational command of the front.

General Stilwell and his Headquarters crossed the Chindwin by a more northerly route. The Japanese capture of Bhamo and Myitkyina compelled the remnant of the Chinese V Army and the 38th Division to fight their way to Assam; other Chinese forces fell back on China. This narrative has barely touched on the operations of the Chinese of which, unfortunately, few details are available. Without the gallant assistance of the Chinese the defence of Burma must have been even briefer than it was.

Of necessity little or no mention has been made of many minor actions and of the numerous acts of individual bravery. Nothing has been said of the good work done by the diminutive Burma Navy, nor of the labours of the understaffed and underequipped medical services. The tremendous handicaps confronting the administrative services have merely been indicated. An account of this length must omit much of importance.

The campaign began with deficiencies of every kind. These increased progressively; yet battles were fought to the end. Of those who achieved this, many were mere recruits whose training ground was the field of action. All

ranks in forward areas existed under the hardest conditions and with none of the small comforts that make life endurable for the fighting soldier.

Few had any real periods of rest. Opposed by seasoned troops, well trained and equipped for the long-planned invasion of Burma, they carried out that severest of all tests of morale, a long retreat in close contact with the enemy.

There is, or was, a general impression that Burma was lost without a stern fight. Nothing is further from the truth. A retreat seldom wins approval, and few awards were won in the campaign. Nevertheless, that retreat of 1,000 miles was a turning point in the war with Japan. By the narrowest of margins the men who fought and died in Burma saved India from invasion in early 1942. Some will realise what that means.

"PSYCHOLOGICAL" WARFARE

"A van equipped with a loud-speaker arrangement went out ahead of our front lines, and gave the Germans three hundreds yards away a blow-by-blow description of a Typhoon attack.

"It informed the Germans that they couldn't hope to escape, and that in a few minutes they would be wiped out by rockets from the air unless they gave themselves up. The voice continued in this vein for some minutes, during which time a few Germans surrendered.

"Then the Typhoons were heard approaching. The voice informed them, and, at a pre-arranged signal, the aircraft dived and fired their rockets into a wood less than 200 yards from the van. The voice supplied a running commentary: "Here they come. The first aircraft has gone into a dive. Listen to it screaming down. And here come the first rockets. Look out! They're coming straight at you!"

"The British officers who took the van into and beyond the front lines sat there while the rocket Typhoon blasted away. They were high in their praise of the accuracy of our pilots."—*Don Fairbairn, in "The Listener."*

TEN DAYS IN THE JHELUM HILLS

BY LIEUT.-COLONEL E. JOHNSTONE

THE HOT weather was over; prickly heat had gone, presumably where flies go in the winter time. Nevertheless, one had that stringy, frazzled, feeling—dragged-through-a-thousand-and-one prickly-bushes-feeling.

My thoughts turned to ten days' leave. A course of leg-stretching was indicated; ten days to forget bugles and the worries of a soldier's life. In other words, a spot of shikar.

I was actually cleaning my .256 and scatter-gun when my orderly gave me a well-handled, murky-looking letter. The address was in crude block letters. Inside I was described as "Honoured Sir, Kaptan Jooney." Another fond father, I thought, asking for his son to be promoted Jemadar straight off from Lance-Naik. I was wrong. It was from Subedar Bulbous Khan, of Jhelum District, and brought a welcome surprise, and an invitation.

Here is the letter; the rub of it anyway:

HONOURED SIR, ETC.

The Urials here are too much and big horns every place. Come shikar and kill same. Bring also Rile Arforse Sahib your friend. Salaams from self, father, grandfather and all your friends of Badlidote.

Kind gift 100 cartridges welcome.

Y. O. S.,
BULBOUS KHAN, SUBEDAR.

A hundred cartridges! that wasn't so bad. A very mild request from one so ambitious as B. K.

I got in touch with the R. A. F. hereinbefore mentioned, one Flight-Lieutenant Davey, a test pilot at the local aerodrome. On telling him of the place and the prospect he remarked: "I'll go. I want to get the drink and dust out of circulation. Tune up the feudal system as it were. But, say, can I fly somewhere in a Bristol Fighter? Indian Railways give me the pip. I only want 500 yards to land on."

I knew the area well, and remembered stretches of mud flats caused by the flooding of the river during the rains and now baked hard and level. Miles and miles of country eminently suitable for dozens of airstrips.

"That's settled," I said, "No trains for me either; I am going in Lispeth, the road louse. There's 30 odd miles of rough stuff, but I'll surprise the populace by driving up their main street."

Leave was sanctioned; stores gathered, and Lispeth got ready for the road. She, poor soul, was in a bad way; that is externally. Her inner cleanliness and functioning was all right, but externally she was awful. Make-up, paint was all worn off, and her upholstery lacked stuffing. But appearances didn't count on this jaunt, and I proclaimed her roadworthy.

Before leaving I arranged ground to air signals with Davey. If I considered landing possible I would put a white arrow in the middle of the strip, the arrow pointing into the wind. If not possible, a letter N would be put out.

Next day I started off in Lispeth. I had 200 miles to go by main road, and then 30 across country to Badlidote in the foothills. Bulbous Khan said he would mend the difficult parts of the track, and have a guide waiting for me on the main road.

Phase one of the trip was almost uneventful. Lispeth got entangled with a camel, one of a long string met on a long bridge. To the day I sold the car I never got rid of that camel smell. One prospective buyer who had a sensitive nose hesitated to seal the deal. I suggested that Lispeth's bad breath was due to old engine oil. This man said that all the oil in Asia wouldn't get rid of that smell. Eventually I sold her to a man suffering intensely from a cold in the nose.

At the start of phase two of the journey I met B. K's party. They festooned themselves round the car, and we started off in great glee for the open spaces.

Was it rough? All that and more. Spates had made cliffs in the so-called track. Some of these were as much as 10 feet high. Bulbous Khan's ideas of the Capabilities of Cars were optimistic and juvenile. We slithered down carrying loose earth before us like a wave. We charged up the other side, carrying another wave before us. We sailed through winter wheat; over corrugated stubble fields. Cattle took fright and maybe are still roaming the hills.

At last Main Street came in sight. To get there I had to charge at a thorn hedge; cross Mrs. Wiwi Khan's Midden; carry away a row of washing; cross a patch of drying chillies; upset a man carrying a load of pumpkins. Thus I entered Subedar Bulbous Khan's courtyard. There a foal took fright and gave Lispeth a hearty kick in the ribs. This kick aptly coincided with the heartrending cough she usually gives on switching off.

As I clambered out of the car the young of the house clambered in and over her. The greetings, so hearty and sincere, were somewhat overshadowed by the howls of the young; especially of one young who burnt his nose on the radiator. Here was no fond mother to dry his tears away. Instead he got a clip on the side of his head. This acted as a counter-irritant, and the howling stopped as if his lungs had been punctured.

Bulbous Khan's father was there sporting a magnificent beard. His eyes were as bright as stars in spite of his three-score years.

"Welcome Captain Sahib to my humble home," he said. "Everything within is yours." B. K. apologised for the absence of his grandfather. During the last rains his house had fallen on him and laid him temporarily low. In the Indian Army the house-fallen-down story is the favourite for ensuring odd spots of casual leave. It is much better than its British equivalent of my-grandmother-is-dead story. Grandmothers have been known to die successfully several times; but after the first time of asking a further request entails risk and possible retribution. Not so with the house-fallen-down system. In India houses can and do fall down on the slightest pretext, and keep on falling down at suitable leave intervals.

I was shown my room; big and airy, with windows. Houses in Indian villages, at the present anyway, do not run to bathrooms. Uplift is in progress, but not to the extent of H. and C. My bathroom was just a corner of the room which later became rather swampy and full of sprouting wheat.

During the whole of my stay I never met or saw any of the womenfolk. Too, I never heard a female voice or squeak. There's something to be said for the *purdah* system—perfect discipline among the ladies. Nevertheless, I often felt many quizzing brown eyes peeping through the jalousies.

That evening, to give my enormous dinner of mutton pillau and other savoury whatnots time to batten down, I took a stroll outside the village limits. I gazed into the blue distance where the hills promised plenty of exercise of body and wits.

Coming towards me was a strange figure, quaintly arrayed in a mixture of King George's uniform and off-white habiliments common to the populace. He was bent, whiskered and toothless with age. In his gnarled hands he was carrying a hookah almost as big as himself. The usual greetings passed between us. I asked solicitously of his crops. "I am, too old for crops now," he replied. "But nevertheless I am still interested in shikar. My eyes are still keen, although my legs are weak."

We chatted on and he told me the main items of Paterson's book, "The Maneaters of Tsavo." He was there at the time, working on the construction of the Uganda Railway. He told me with relish, smacking his lips the while, of the lion's choice in selecting the fat man of the three in the carriage although Fatty, being in an upper berth, was harder to wrinkle out. He was a grand old man.

That evening we had a shikar council in the courtyard. We sat on charpoys set in a square with a log fire in the middle. A full moon rode overhead. The light softened the lines of rugged faces, and lent beauty to the scene. Nearby, cattle were chewing what cud they had, punctuating our deliberations with loud belches. We humans added our quota, signifying that we had fed well.

Beyond our circle there was not a sound; not a stir. Do their womenfolk go to bed so early? Do they talk in whispers? What about the chores—the washing up—the hundred-and-one activities of a large household? The answer is that they have simplified life so well that many of these hundred-and-one activities were found unnecessary.

For instance, in this village they used wood for cooking. This wood came from the foothills in logs sometimes a foot through and four feet long. Was this timber chopped into small bits? Not a bit of it. Their cooking places were so fashioned that they would take them uncut. Logs were kept smouldering almost day and night.

What about washing up the dishes, pots and pans? Again simplification; again the line of least resistance. *Chupatties* did the work of plates; fingers of knives, forks and spoons. One big brass platter held enough for everybody. You will say, but surely the platter and cooking pots could not be short-circuited. Of course they were, cleaned, dry-cleaned, using ashes from the fire.

Laundry work is kept to a minimum. Why wear clothing away by washing them? Too, if you did wash your shirt it would only get dirty again. Nevertheless, for certain high days and holidays they would delve in the old oak chest, or its equivalent, and appear in spotless clothing. Beds were never made; they were always required at odd places and moments to sit on. When bedtime came you got your charpoy, some bedding, and rolled up like a silkworm.

The line of least resistance also comes into action outside the house, into agriculture, the transport of produce, etc. The village blacksmith contracts to keep the zemindar's ploughs in working order, his horses shod. For this he gets so many bags of corn a year. The carpenter, too, has a similar contract and heaven knows who else. Possibly the shoemaker, the weaver, the barber, the midwife and others. The zemindar's job is to plough the soil, sow the seed and watch it grow. He may even dodge reaping it by contracting for the job. I have heard it said that the zemindar works only for about a quarter of the year. If this is so, then I admire him for the way he spends the remaining three quarters. I have never seen him bored; inactive perhaps, but never bored.

In the circle was Nawab, the ancient *shikari*. He opened the pow-wow by saying "For many days I have seen *Dada*, the father of all *Urials*, near the Zar Nullah. His horns grow bigger, his beard longer and whiter every day. Captain Sahib, you must get *Dada*. He is the biggest and craftiest *Urial* in the whole world. There is a story that he can either disappear into thin air or into the bowels of the earth. One moment he is seen, next he has completely gone."

"I have seen this magic many times," said B. K. "I think he can burrow like a jackal." "How big are his horns?" I ask. "So big; so thick," said Nawab, indicating something over a yard long and six inches thick.

Making the usual discounts, *Dada* was certainly worth bagging. Then I told them of the proposed arrival of the R. A. F. to-morrow morning. This caused sincere delight, for many had never seen a 'plane, and loud were the explanations of how it worked. One pensioner Subedar said he had seen many at Ambala. His great question was: Why should the driver wear heavy clothing and yet have a punkah in front to keep him cool? This punkah problem solved, then came intricate discussions of time and space; possibilities for peace and war in years to come.

That night I dreamt of a flying *Urial* with gigantic horns that flapped and spun and a beard that splayed out behind him like a comet.

Next morning a party of us went out to prepare the landing site. It proved to be Nature's own landing strip; first flattened by floods, and then baked hard by the sun. With sundry articles of white clothing we made a big arrow pointing into the breeze and on the edge of the strip started a smoky fire.

With eyes glued to the South and ears tuned in, we sat and waited. Davey was a stunt artist, and wouldn't be content to alight sedately. He'd first do the odd loop, turn and dive. He'd try and scare the life out of the villagers who could be seen crowding the housetops. I wondered if the ladies would be content to stay put in purdah, or demand front-row seats.

Ears won over eyes in the race for locating the Bristol. A minute or two later it came into view making straight for the village. Down it swooped, just missing the throngs on the rooftops. Up it zoomed, gained height and made a beautiful loop, straightened out, skimmed the rooftops again and made for the strip. Davey did a couple of turns over the ground, headed into the wind and made a beautiful landing.

We raced up to the 'plane. Davey got a wonderful reception. An angel in their midst couldn't have been received with more awe and reverence.

His kit was unstrapped and taken away. "Pleasant journey?" I asked.

"Pleasant enough," he replied, "except for the stink of Gorgonzola cheese in the cockpit. As a treat I bought several pounds at Lorenzas, and they packed it in paper instead of armour plate."

"I hope you didn't bring any bacon."

"No, I remembered that. Wouldn't hurt our hosts' feelings for words. No ban on the odd spot of Nature's Own Remedy, is there?"

"No, that's O. K. as long as you don't brush your hair with it," I assured him.

The Bristol had now to be prepared for its homeward journey. Instead of Davey, half a dozen filled sandbags took his place. Davey's passenger took over the controls, rose like a bird, and headed for whence he'd come. His modern mode of arrival had certainly gripped the imagination of the villagers. They swarmed round in huge delight. I counted several veterans, old pensioners who had been bedridden for years. To my surprise and amusement, the ladies were present, too. Admittedly they were discreetly clad in *boorkhas*—seeing but yet unseen.

"Didn't expect this fun and games," Davey remarked. "Will I meet the Mayor? Will I have to give a speech?"

"There are no Mayors, rulers, gauletiers, municipal committee or gestapo in this outfit." I replied. "Their motto is the line of least resistance, and Allah be praised."

They insisted on shaking hands with the Great Pilot. He did his stuff in great style, displaying a bland smile and murmuring "*bahut achchha*" at four-second intervals. I asked him to ring a change by saying "*nihayat achchha*." He scorned my advice, saying he was getting along fine.

In our room later Davey said: "These are grand folk. What chance of settling down and playing village uplift?"

"You'd get tired long before they did. You'd go poopsie in the attempt and die of a thwarted ambition. Whence this missionary zeal? Aren't they good enough as they are?"

I noticed a blue smell in the room. Davey was looking anxious too. "Worry not, 'tis that cheese," he said. "We will have to eat it at one fell swoop, or bury it at the dead of night."

"The eats are most lavish and altogether oriental," I said. "To me a funeral is indicated. That cheese will get us a bad and insanitary name."

At dead of night the yowling of jackals shattered the welkin. I whisper: "They are after the cheese, Davey. Let 'em have it." We reverently carried the offending cheese far into the night and abandoned it. To hasten its advent into another world we chanted the Volga Boatmen.

Later the yowls ceased, and during our stay we never heard them again. I'd hate to think the savage breasts had been for ever soothed.

Next morning, suitably accoutred, we sallied forth to try and gain contact with *Dada*, the biggest and craftiest *Urial* in the whole world. In the party were Bulbous Khan and his father and two young sons, the ancient of the man-eating lion episode, and Nawab the *shikari*; eight of us altogether.

We made for the foothills, about five miles away. We passed through acres and acres of healthy, young wheat. In this part of the Punjab there is no irrigation, and the success or otherwise of the wheat depends on rain. Wheat is all they grow, although near wells one might see odd strips of dull-looking vegetables. In growing vegetables too, they study the line of least resistance. They sow a few marrow seeds, and soon the whole place becomes a mass of tenuous trailing foliage, leaving no further room for tillage or effort.

Nevertheless, they seem to do well without the two Vs—vitamins and vegetables. In Badlidote, with a population of at least a thousand souls, there were at least a hundred well over the three-score-and-ten. At least 75 per cent. of the men were serving in the Army, or had served, and were drawing pensions. Perhaps their longevity is thus explained—the intense will to live, plus a pension.

We soon reached the rough stuff; rocky hills sprinkled with scrub. We flushed a family of *Urial*, and away they went like the wind, over the next ridge. The ram formed the rearguard, and before flicking himself over the crest halted and took a last look at us. After another mile or so the Nawab stopped, and said that this was *Dada's* favourite ground. The place didn't look very inspiring to me. It seemed very poor *Urial* ground, and to add weight to my opinion a railway engine hooted, and we could distinctly hear the rumble of wagons. This was a sideline, they explained, that cut through the hills by a tunnel half a mile long.

B. K. suggested splitting the party, half going one way and the other half another way, eventually meeting at a R. V. called Pala Pani. Davey and Nawab went left; B. K. and myself right. We did some tricky traversing on shaley boulder-strewn hillsides, seeing nothing. At one point we crossed a crest that gave a fine view of a big nullah with a knife-edge forming the far side. Half a mile down the nullah we saw the other party lying as if frozen, with their heads just below the far crest. We froze, too, sensing that they had seen something. Then we saw Nawab crawl back from the crest and signal us to join them. He seemed very excited, wildly gesticulating.

We managed to get into the nullah unseen, then hared as hard as we could to join the others. Davey was peering through binoculars. I lay down beside him, also gazing in the same direction. There, silhouetted against the skyline three or four hundred yards away, on a lone hilltop, stood the father of all *Urials*.

Without a word Davey handed over the binoculars. There was no doubt now. The ram was looking in our direction, showing a magnificent head and a big, flowing beard. The binoculars were passed round, but I doubt if Nawab got much aid from them. He kept twiddling the nob and pointing the glasses towards the bottom of the nullah. I asked him what he thought about it. "There is undoubtedly magic in these spectacles. That is *Dada*, the wonder of all *Urials*," he said.

We lay fascinated by the sight; like kids at the Zoo seeing a giraffe for the first time. The only movement from *Dada* was from the breeze in his beard.

We crawled back under cover and got into a huddle to discuss ways and means. The scheme decided on was for Davey and his party to make a wide circling movement, and stalk the *Urial* from the rear. Should they flush him, failing to get in a shot, they would cut his communications and possibly give me a chance.

"Good luck," I whispered as Davey moved off. "Remember when you put your nut over a crest see that it is screened with foliage or some such."

"I'll remember," he replied. "This is where I show that the R.A.F. can move on land as well as in the air."

For us it meant a vigil of at least half an hour. We spent the time keeping a wary eye on *Dada*. He was quite unperturbed, and had started feeding. One splendid view we had was when he stretched his full length upwards to reach a branch.

Hours later, so it seemed, *Dada* did a quick turn like a scalded cat and gazed in the other direction. A couple of seconds later there was a snort, and *Dada* was on the move. He had the choice of moving away to our right or appearing over the crest just in front of us. We waited and prayed for the latter. Davey then appeared on the pimple just vacated by *Dada*, and pointed in the direction of the railway line. That was that! We pointed our noses in that direction too, and set off as fast as our legs could carry us. We crossed the line near the tunnel, and searched the country for miles around. Not another peep did we have that day of *Dada*.

On our way home I noticed that Davey was limping. "The R. A. F. has a blister?" I asked. "The R.A.F. has," he replied. "One as big as a pancake."

"Here's another bit of soldier lore," I said. "Before extensively using your flat feet, soap your socks."

That evening we were asked to tea by Abdullah Khan, the old gentleman bedridden through the roof of his house falling on him. Rightly so, he had the biggest house in the village. Quite a pretentious affair of two storeys, made of bricks. The tea party was held in the old man's bedroom. To get there we had to use an outside staircase. The room was full of people and food.

The Grand Old Man beamed on the scene with obvious delight. The last to be introduced was a bright youngster of seven or eight years of age. "This is my youngest son, Ismail," he said. At this information Davey's eyes popped out about a foot. Later he confided to me that he was now quite prepared to believe in fairies.

Here was Abdullah Khan with a grandson aged 40. He couldn't have been a day under 80. He had been drawing a pension for 40 years. It was this pension, he said, that kept him alive.

Later I asked him about the "house-fallen-down" business. He said, "This very roof fell on me, and now I am stiff and sore all over my body. Sahib, get me some of that English embrocation and send it to me. With that I will soon be well again, and who knows I may be able to go out next time and show you some real *shikar*."

A wonderful old man. He was with Roberts on the Kandahar adventure and later, in 1885, went to the Sudan for the Mahdi rebellion. His greatest feat to my weather-conscious mind was that he had survived so many Indian summers without the aid of any synthetic coolth. This village was full of men like him. Men to whom hardships and discomfort meant nothing. I met many in this same village who had travelled the world, stoking for the P. and O. Scarlet coats, richly be-medalled, belonging to an era years before my time, were proudly produced for my inspection and admiration.

For the next two days we went out to the same area—*Dada's* stamping ground. On each occasion he was seen at long range; on each occasion he disappeared, as before, into thin air. Neither of us had fired a shot, although we had many a chance at less noble heads. That night round the courtyard fire we decided to carry on and hope for a bit of luck.

Next morning we approached the area from another direction, hoping to deceive the enemy. Yes, *Dada* obliged by being on view; this time on a ridge overlooking the railway line. He was within range but was off before we could take the first pressure. We hared like mad to the place he had just left, hoping to get the direction he had taken. We got there within a few minutes and looked down into a shallow valley holding the railway. Not a sign; he'd done his vanishing trick again!

Bulbous Khan said: "He's gone over the hill there. Let us go through the tunnel and surprise him on the other side."

Into the tunnel we ran, stumbling over the rough metal and sleepers. When about half-way through we heard a roar behind us and there, chasing us, was a train. The engine gave a deafening whistle and came thundering along. We ran as hard as our legs could carry us, heading for the bull's-eye of light ahead. The going was bad in the dim light; too bad for me for I stumbled and fell with a crash, damaging my knee.

"Run like blazes," I yelled. "Never mind me." I made for the side and, with the help of a small pencil torch I always carried in my haversack, found one of those cubby holes made for such an event. I crouched against the slimy rock and waited. Flicking the light in and about my abode I noticed something in the opposite cubby hole that just didn't fit in with the landscape. I leaned forward and put the light on again. Sure enough, there, in the opposite funkhole, was *Dada* the King of all *Urials*. Well! well! I thought, what an animal! No wonder he had reached such a ripe old age.

The goods train thundered past, leaving a stench as if from Hades. I waited. Then I heard crunching on the metal; *Dada* was on the move. I switched on the light and saw him sedately making his way for the other bull's eye.

"Good luck!" I called after him, "I won't tell a soul." I joined the others outside in the fresh air and brilliant sunshine. Their morale had been shaken and no mistake.

The R. A. F. voiced my sentiments when he said, "Let's go after less abnormal *Urial*. That beast is supercharged and has a higher octane content than is decent." We did, with moderate success only. We each bagged a head worthy of the ancestral hall; but only just.

Our departure was as exciting as our arrival. Lisbeth was festooned with old and young. At each bump a couple were cast adrift, much to the delight of the R. A. F., who had deigned to come along.

At the city, where we joined the main road, I bought a bottle of embrocation, which I gave to a young son of Bulbous Khan's who happened to be the sole survivor of the luggage grid.

"Give this to your august grandfather," I told him, "and say to him that this medicine is for external use only. He will surely die should he drink it."

And so back to the bugles again.

OFFICERS: PAST, PRESENT AND FUTURE.

BY LIEUT.-COLONEL G. A. MITCHLEY

IF in the interests of peace an efficient and effective army is to be maintained by Britain after the war, then discussion on the selection and training of the future infantry officer is necessary and opportune. I therefore make the following suggestions towards the achievement of a threefold but correlated aim :

(i) To raise the quality and increase the quantity of candidates for an infantry commission ; (ii) to maintain that quality and to ensure a sufficient quantity to meet the needs of expansion in emergency ; and (iii) to give the average officer of the reconstructed service the assurance of a definite and interesting career.

These aims are problems of the present. To see them clearly involves some understanding of the past.

* * * * *

The Noble of the middle ages and beyond retained his lands by producing on demand from his Sovereign Lord a quota of soldiers from amongst his tenantry. The Noble and his relatives led the troops in battle and were the officers of the Army. When the emergency no longer existed, the army so formed was disbanded.

In the 17th and 18th centuries it was found politic and advisable to maintain a standing army, composed of units originally raised for a particular emergency in some particular area. Any unit which remained embodied kept its territorial distinction, and drew its officers and men from the area in which it had been originally raised, and from amongst those people who had supplied the original quota of officers and men.

The army continued to reflect the feudal system of the country for many years, but social and political changes in time tended to rob Regiments of much of its territorial tradition, and before the present war few of the officers or men of the great majority of Regiments could claim even residential affinity.

At the beginning of the 19th century the country was changing from an agricultural country to an industrial one. One result of this was that a new moneyed class came into being. Parallel with this social upheaval was the forming of a professional class, who also became possessed of a large proportion of the wealth of the country.

These two classes educated their sons at institutions to which, previously, mainly the landowners had access, and so created a new officer class whose claims to being officers did not rest on their feudal rights over the men they commanded, but on the wealth they possessed and the education they had received.

The Education Act of 1870 introduced compulsory elementary education throughout the country. At the beginning of the 20th century secondary education was extended, with the result that the general standard of education of the rank and file of the Army was considerably raised. Educational measures enabled selected boys by means of scholarships to reach the same educational standard as that provided by the Public Schools and similar schools where education had been available only for those who could pay the fees, and to receive University education.

The results of the movement of wealth and the extension of educational facilities began to show themselves during the 1914—1918 war, when the great increase in our Army brought into the ranks men of education and executive ability, and into the cadre of officers, men who had previously not been granted commissions, including many whose education had been obtained in the Elementary schools or whilst serving as Regulars.

Thus at the beginning of the present war the Infantry arm of the Regular Army was officered by men of all the types mentioned above, and amongst them were officers of different qualities and standards of efficiency.

* * * * *

Before 1939 the majority of regular Infantry officers received their cadet training at Sandhurst. In addition, some were commissioned *via* the Territorial Army or by transfer from short-service commissions in the R.A.F. ; a few joined direct from the Universities. Entry to Sandhurst was by competitive examination, though in 1919—1939 the competition was not keen, and most cadets who received qualifying marks received vacancies. Against this, competition for entry into Woolwich, the R. N., and the R. A. F. was very keen.

After about 18 months' training at Sandhurst, the young officer was posted to his Regiment and, until the Belisha reforms took effect, spent the first 8, 10 or even 18 years as a subaltern, with little or no responsibility. Having obtained his captaincy, he waited another 10 to 15 years before promotion to Major. At the age of about 48 he obtained command of his battalion, and retired at the age of not more than 52. In rare cases, a brevet promotion was given, or a selected officer was promoted into another Regiment to obtain for him accelerated promotion.

The training of the officer was considered to be the personal responsibility of the Commanding Officer, except that every officer had to qualify at an Army S. A. Course, and to pass a written examination in tactics, military law and organisation, military history and geography, a military essay and a practical examination in tactics before he was promoted Captain. A similar written and practical test was prescribed for promotion to Major.

Before selection for command and promotion to Lieutenant-Colonel an officer attended a Senior Officers' School where he was instructed in tactics, administration and organisation, and his capabilities for command were assessed. During the earlier years of his service, the officer attended courses such as P.T., Signalling and Anti-gas training, and by various other means efforts were made to train the officer in his duties. Periodically manœuvres were held, and for those who served in India, soldiering under conditions approaching war occurred at frequent intervals in unsettled areas.

Though steps were taken to fill the officer with professional knowledge, the system of promotion precluded any possibility of a young officer developing fully his powers of command, or exercising his initiative or mental faculties in training his men. Training naturally was laid down in principle by A. H. Q. but so personal was a senior officer's responsibility that an officer was more concerned with reproducing in his unit the ideas of his immediate superior than in experimenting or testing his own ideas.

The result of this shackling of personality and this lack of opportunity was that after about 10 years as a subaltern, with little opportunity to command, 10 to 15 years as a captain and major with a company of some 150 men to command, an officer's mental faculties had become atrophied and his abilities channelled and confined.

The general training and experience an officer received not being considered adequate, certain selected officers were allowed to compete for entrance to one of the Staff Colleges where they received excellent training in their professional duties. Unfortunately, the very efficiency of these officers threw into even stronger relief the deficiencies of the remainder and created a further barrier to general advancement and homogeneity.

The necessity for training and instruction on a wider foundation was realised before the beginning of this war, when both junior and senior Staff Colleges were created, entry to the senior being decided after completion of the junior course. An overdue improvement in general training was in process of implementation just before the outbreak of this war, in the formation of tactical schools for training the junior officer.

* * * * *

With war came expansion and an ever-increasing demand for experienced officers of all ranks. Promotions were made to fill appointments whose duties demanded an officer of a certain rank. To provide experienced officers for new units, regular units were "milked" until, in a short time, few units had more than four Regular officers. Peacetime cadet colleges were expanded and, to postpone the final selection of the post-war cadre of Regular officers, only emergency commissions are granted.

The normal method of entry to a cadet college is through the ranks, and to ensure that the future officer is entirely suitable, the opinion of the applicant's commanding officer is confirmed or rejected by a Selection Board, where a psychiatrist and a psychologist assist selected officers in assessing the standard of the candidate.

Training at O. C. T. Us. and O. T. S. has proceeded generally as during peacetime, though new ideas and methods are constantly introduced, and the cadet has to prove his ability and fitness to command before being commissioned.

When commissioned, he is sent to a Training Battalion or Centre of his Regiment, there receiving further training amongst recruits. Later he joins a Training Division, and finally is posted to a War Battalion. Before selection for a cadetship he is classified for suitability for any particular arm of the Service and during the O. C. T. U. training further classification is carried out. Failure to maintain the requisite standard results in the cadet being transferred to a junior course or returned to his Unit.

Training of an officer in this war has received much more attention than in peacetime. Army schools concentrating mainly on tactics and specialist forms of warfare have been set up, which are in addition to peacetime schools for training officers to be instructors in small arms, anti-gas, signalling, etc. The tempo of the staff colleges has been quickened; the maximum number of officers are given staff training and there is the practical experience under war conditions.

To ensure physical and mental fitness for command of battalions, the age-limit has been considerably lowered; officers of all ages have been removed from formations and units, where their lack of ability was a menace to operations. For many of these officers there are many wartime appointments they can fill successfully, but there are many of all ages whom the fierce light of war conditions has shown to be unfitted for the rank they have obtained.

My deductions from these facts are two:

- (i) The peacetime selection of infantry officer-cadets produced neither the quality nor the quantity of officers necessary to expand the war machine;

- (ii) The peacetime system of training the infantry officer failed in its task of providing at the outbreak of war a cadre of officers capable of handling the problems present to them.

Selecting the Post-War Officer.—The general level of post-war education will be considerably above that of the period before the war. Consequently, I consider that candidates for infantry cadetships should, by the age of 16½, have attained the standard of matriculation at a British university. Such candidates will during the next two years continue studying at school, with latitude in choice of subjects, and receiving instruction in the School O. T. C.

At the age of 18—18½, the candidate for an Infantry commission will, following the recommendation of his Head Master, be tested by a Selection Board of the present type. The officer-cadet will then go to a University for a two years' free course of study, at the end of which he should sit for a degree examination in Military Science. At the University he will live the life of the normal undergraduate, though training with the U. T. C. will be essential. On the results of the final examination, the cadet will receive antedating of the date of his first commission.

To ensure that the future officer receives the admitted benefits of service in the ranks, he will, before joining his university, serve in selected battalions a portion of that compulsory military service now demanded of all British male subjects.

The abolition of the individual infantry regiment and its replacement by a corps, or regiment similar in organisation to the Royal Engineers or Royal Artillery, is long overdue. In the infantry, an officer is in peacetime restricted in his thoughts and actions by the fact that he belongs to a particular regiment.

Such distinctions, it is argued, make for *esprit de corps* and healthy rivalry, but the converse is not proved in the case of what is practically the remainder of the arms and services of the Armed Forces; nor does the "corps" system appear to prevent pride in a particular unit of a corps. The effect of this innovation will increase greatly the popularity of the Infantry *vis-a-vis* other Arms and Services.

A further benefit from creating a general roll of Infantry officers is that the problem of officering the armed forces of the Colonies and India becomes easier of solution. At present the system for the former is based on a sufficiency of British Service officers being seconded for a limited period; an example is the West African Field Force. For the Indian Army, a young Infantry officer elects to serve the full length of his service with the Indian Army. The future Infantry Officer will serve with all these forces, in the same way as an officer of the R. Es. served with Indian troops up to the beginning of the present war.

Below is a programme of training of officers; conditions of service should be such that the officer who used to declare that his only aim in life was to spend his whole service with his battalion, shall no longer exist. Lip service to the principle of decentralisation must give way to a real delegation of responsibility to officers of all ranks, who shall be encouraged to use initiative and to employ their mental faculties in achieving the results required.

On results of courses, and on the independent yearly reports of three officers senior to the officer and acquainted with the officer's capacity, combined with a test of the same nature as the present promotion examinations, an officer will be selected for promotion, as vacancies occur. Officers showing a good

general standard will receive promotion according to seniority ; those who fail to remain proficient will give way to those who, though junior in service, have shown zeal and ability. In the junior ranks, the time-scale will operate, to ensure that an officer who is retained in the Army receive in due course promotion to the next rank.

Here is a syllabus of training for all officers :

Subaltern.—An Army course in small arms, in D. & M. and administration and organisation including office organisation, drafting of letters, typing and systems of filing. An Army course in tactics, including setting of schemes and T. E. W. Ts. Staff duties in Battalion H. Q. and Brigade H. Q. A specialist course, such as P. T. or Signalling. Attachment to another arm of the Land Forces.

Captain.—As above, but more advanced. Junior Staff College course, followed by a tour of duty at a Formation. Attachment to another Arm of the Service, and to Police or Railway, or Shipping company, or Civil Administration.

Major.—Senior Staff College course, following by tour of duty with a formation. Senior Tactical School. Attachment to another Arm of the Service.

Lieutenant-Colonel.—War Games and Staff Rides. Visits to Schools and Staff Colleges. Attachments as for Majors.

Brigadier.—Imperial Defence College. Visits to other Services and foreign Armies.

The inherent distaste of the British Public for a large Army has resulted on two recent occasions in the expenditure of an incredible sum of money and many lives. Consequently I assume that the future professional Army will receive a fair proportion of the national income and that the value of a nucleus Army of highly efficient officers will be admitted. Conscription will provide the foundation of wartime expansion so far as other ranks are concerned. The past two World Wars have shown the need for more officers mentally and physically capable of organising training and leading the many new units which a war creates.

The previous paragraphs suggest a system whereby every officer receives training of a comprehensive nature, thus ensuring quality. Here I suggest that in place of the cadre of Reserve Officers maintained before the present war, that sufficient officers be employed based on the agreed War Establishment plus a number calculated on the assumption that every officer absent on courses, attachments, etc., is considered seconded from his unit.

Before the present war, it was usual for many officers to transfer from the Infantry to Services of the Land Forces, such as the R. A. O. C. and R.A.S.C. The post-war Infantry Officer will be more highly trained than the pre-war officer, and I suggest that in the post-war Army entry into those services be by selection from the Infantry, except for appointments requiring officers with high technical qualifications, and that an officer when commissioned into the Infantry agrees to transfer, should it be considered advantageous for him to do so.

* * * * *

The modern officer, when entering the Army, willingly accepts conditions which are peculiar to that Service, but in so doing he cuts himself adrift to a large extent from commerce and other professions, and to the prizes they offer. If in mid-career he is flung back into the outside world, he is very much at a disadvantage ; he is too old to qualify in another profession, or to compete in

commerce with those who entered it in early life. On the other hand, an inefficient officer has no claim on the Army, and in that respect should receive the same treatment as is received by the inefficient in commerce or in the professions.

The solution of this problem does not lie in increases of pay, as service as an officer outweighs considerations of increasing bank balances. But if the Army is to be efficiently officered, the entrant must be reasonably assured that his career will normally terminate at the time tacitly agreed when he enters the profession.

This problem will be solved if my suggestions are adopted: (1) Careful selection and training of the officer-cadet; (ii) Creation of a Regiment of Infantry; (iii) Comprehensive and intensive training of an officer during his career; and (iv) Normal recruitment of officers to other suitable services (R. A. O. C., R. A. S. C.) to be from the infantry.

In entering the Army the officer will know he is of the accepted standard; at the various stages of his career he will know he is maintaining that standard; and he will be able to see that he will be employed where his abilities are best calculated to produce results.

RUSSIA

"If there are any who fear that Russian power may be misused after the war, let them travel as our delegation of M. Ps. travelled, through hundreds of miles of devastation; let them discuss with architects and engineers the plans which have been drawn up to rebuild Russian cities, to repair industry and to develop even further the vast industrial resources which are available not only in European Russia, but in the Urals, Central Asia and in the far north.

"After the war the fullest opportunities are to be given for frequent large-scale visits of Soviet citizens to England, so that in turn they may learn something at first hand of our way of life and of our social economy. I hope also that Soviet leaders will make it easier for British citizens to go to Russia, mix freely with its citizens and see all they want to see."—*Mr. Wilfred Robert, M. P.*

THINGS PEOPLE SAY

"Berlin has received 35,000 tons of bombs."—*"Daily Telegraph."*

"Two-thirds of the Canadian First Army are British troops."—*War Office.*

"The Spanish language is spoken by 110,000,000 people."—*Lord Davison.*

"You cannot govern the world by emotionalism."—*Mr. Ernest Bevin, M. P.*

"The code word for the European 'D' Day was 'Overlord'."—*Sir James Grigg, M. P.*

"Japanese merchant shipping losses are estimated at 5,500,000 tons."—*Admiral Nimitz.*

"The time has come to award men of the Fourteenth Army a Burma Star."—*"News-Chronicle."*

"Great Britain has multiplied her National Debt 30 times in the last 44 years."—*Mr. Gibson Jarvie.*

"The British Red Cross has collected £47,250,000 in this war. In 1914-18 it raised £16,500,000."—*Lord Iliffe.*

"Upwards of 165,000 Irishmen have been serving in H. M. Forces during this war."—*General Sir Hubert Gough.*

"After the war the British Government should spend at least £1,000,000 on aeronautical research."—*Sir Henry Fizard.*

"South Africa's output of S. A. A. is now 45 per cent. of that of Great Britain."—*Director-General of Supplies in South Africa.*

"In the Great War of 1914-15 a total of 633 V.Cs. were awarded. In this war the total to date is 115."—*A writer in the "Daily Mail."*

"I have yet to see a sailor who has been through a great storm or great action who does not believe in God."—*Vice-Admiral Sir Robert Burnett.*

"The R. A. F. Transport Command flew 4,000,000 miles in January without a single accident involving death or injuries."—*Sir Archibald Sinclair, M. P.*

"America can now build in a year about a quarter as much ocean-going shipping tonnage as the whole world possessed before the war."—*Sir Arthur Salter.*

"General de Guingand, Chief of Staff to Field-Marshal Montgomery, was a major in the Middle East in 1940."—*Mr. Arthur Christiansen, "Daily Express."*

"The Belgian Ministry of National Defence is to pay 1,000 francs to every member of the Resistance groups who was actually under arms."—*Belgian News Agency.*

"The total war savings in Britain amount to £8,470,000,000, equivalent to £35 for each of these five years for every man, woman and child in the U.K."—*Lord Kindersley.*

"It will take ten years to salvage all the ships sunk or destroyed by the enemy in waters of occupied countries."—*Captain J. B. Pollard, Admiralty Salvage Department.*

"For sale: Retired lieutenant-commander's jacket, trousers and overcoat. Would make excellent doorman's uniform, if rebraided."—*Advertisement in Home weekly paper.*

"The alliance between our country, Great Britain and the United States is based not on accidental or temporary motives, but on vital and lasting interests."—*Marshal Stalin.*

"The war will be temporarily interrupted this year, but the stars prove conclusively that it will not end until 2005, and then with a German victory."—*German Press Attache in Eire.*

"I asked a certain Ministry a question on 'how to treat defaulters.' In the reply my simple phrase had been turned into 'methods of dealing with recalcitrant personnel.'"—*Mr. Wilfred Massey, M. P.*

"I know of nobody who has been dissatisfied at the end of a conversation with Hitler. With a mere gesture of the hand or with one word he solves problems which have puzzled experts for weeks."—*Goebbels.*

"Photographs show that the famous floating dock at Singapore, which was scuttled by the British before Singapore fell, and afterwards refloated by the Japanese, is once more scuttled—this time by Allied bomb attacks."—*B.B.C.*

"The use of the 'Mulberry' artificial harbours for the landings in France, instead of fighting to capture existing docks, must have saved the British and American armies from 100,000 to 150,000 casualties."—*Mr. Ernest Bevin, M.P.*

"The Russians have repeatedly said—and they mean it—that they intend to take back to Russia large numbers of Germans, perhaps several millions, to make them rebuild a great deal of the Russia they have ravaged."—*Negley Farson.*

"I hope that at the end of this war we shall give justice to our enemies, but do not let us do what we did in the last war—grant justice and then so temper it with mercy that it ceases to be justice for ourselves."—*Major F. W. Cunliff, M.P.*

"The Government of Eire has begun to collect debts due from its citizens to Germany. The Irish Department of Finance says that in agreement with Berlin the money will be used to offset German debts to the Eire Government."—*Mr. H. Wickham Steed.*

"Weapons in use by the United States Army overseas to-day are in scarcely one instance the same as those provided when the country was attacked on December 7, 1941. The Army Services have shipped 40,000,000 tons of cargo overseas in 1944, compared with 19,000,000 in 1943."—*Lieutenant-General A. Somervell, U. S. Army.*

"British troops long ago exposed the myth that the so-called sacred soil of Japan can never be invaded. Eighty years ago three Victoria Crosses were won inside Japan in a single afternoon, the afternoon when British Marines and sailors stormed and destroyed the famous forts at Shimonoseki."—*Alington Kennard, broadcasting from London.*

"Of the first fifty thousand wounded sent to England from Normandy last year only 4 per cent. died. The blood-transfusion service plays a great part in this. Nearly a million-and-a-half men and women in Britain take half an hour off every now and again to give three-quarters of a pint of blood to save the lives of fighting men and bomb victims."—*B. B. C.*

"Ravenna was a key point in the German lines of defence in Italy. There was stubborn fighting there, and instinctively one thinks of the Ravenna churches with their 1400-year-old mosaics, the most glorious relics in all Italy of early Christian art. But to-day in that sorely battered town all but one of the churches are intact, and not one of the mosaics has suffered any hurt."—*Lieut.-Colonel Sir Leonard Woolley.*

"You won't find much mention of the art of picking regimental and battalion command posts in the field manuals or conference courses, but if you, my friend, are an adjutant, communication officer or a headquarters commandant you had better acquire the art quickly. It is one of those accessories to military science which is so important but unmentioned."—*Captain A. B. Campbell, Jr., in "The Infantry Journal" of America.*

"The British Army has travelled a long way during the last three years. It has travelled the Nile Valley by way of Tripoli, Sicily, Rome and Florence to the valley of the Po; it has travelled from Rangoon back to the hills of Assam and forward again into the heart of Burma. It has travelled *via* the training grounds of Britain to the beaches of Normandy into France, Belgium and Holland; and, finally, into Germany."—*Sir James Grigg, M. P.*

"In the first year of the last War Britain produced 114 naval vessels; in the first year of this war we produced 231. In the second year of the last War we produced 548 vessels; in this war 914; in the third year of the last War we produced 502 vessels; in the third year of this war 960. In the fourth year of the last war we produced 490 ships; in the fourth year of this War the total was 1,984 vessels. This was all done with fewer yards, slips and workers. I think it an amazing result."—*Mr. A. V. Alexander, M.P., First Lord of the Admiralty.*

"There is no magazine in Russia to-day to compare with humorous papers abroad. But the Russians are humorous people for all that. Here is an extract from the Moscow humorous paper, *The Crocodile*: 'Munich. A military parade took place here yesterday to celebrate the third anniversary of the proposed German victory march across Moscow's Red Square. Among those present were the widows of those who had taken part in the proposed Moscow parade of November 7, 1941' ".—*Alexander Werth, Moscow correspondent of the "Sunday Times."*

"If India is still tossing with the fever of political faction or if her political doctors decide that she must undergo a major surgical operation, such as Pakistan, she may miss her opportunity of greater well-being and greater happiness. The first requirement for a return to health is a faith cure, belief in the good intentions of the British people, and in their genuine desire for a settlement and for the welfare and self-government of the Indian people."—*H. E. Lord Wavell.*

THE BURMA NAVY

BY "MATLOW."

THE IDEA of a Burma Navy first crystallised in 1937, when Burma separated from India. She then became responsible for her own defence forces; and the protection of her coastline, long and particularly difficult in the south, was clearly a specialised duty. Recognising this fact, the Admiralty appointed Commander Lyle, R.N., as N. O. in Charge, Rangoon, with the dual rôle of Commander of a new Burma R.N.V.R. He arrived in 1939.

The service must be amongst the youngest and smallest naval forces in the world. Officers were formerly assistants in European firms in Burma, or graduates from Rangoon University; ratings are English-speaking, many of them of School-Certificate standard or above it. English is obligatory, all training and orders being given in it. European instructors are seconded from the Royal Navy and the Army.

British, Anglo-Burmans and Burmans form an extremely happy mixture. There are no religious difficulties or taboos. The Burmans are high-spirited, quick to laugh and keen-witted; the Anglo-Burmans are reliable and efficient; the British, educated and responsible.

Due to delays and shortages in shipments, naval craft were very slow commissioning. When war came to Burma, only five Thornycroft M. L's. were available. In the interim, while Burma sat upon the time bomb, recruits were trained in Rangoon in rather grim premises, what time barracks were being (and actually were) constructed. Seamanship and navigation were taught by Master Mariners, gunnery by the W/O instructor, drill by *ex*-Army N.C.Os.

For practical work, launches were loaned by the Rangoon Port Commissioners, the Irrawaddy Flotilla and the Burma Oil Companies. On these craft training, and, later, mine-watching patrols were carried out. In addition, a large P.W.D. dredger was anchored in midstream off the Battery at the mouth of the Rangoon river, where it combined the dual purposes of training and examination vessel.

A small more or less seagoing tug was acquired, and in it minesweeping was conducted at the approaches to the river. In Rangoon itself a Naval Wireless Station was set up and manned by officers and men, who were soon to have a heavy weight of work and responsibility thrust upon inexperienced shoulders.

In Mergui and the Archipelago a handful of the more advanced personnel was aboard Government launches. This was not merely training. A Japanese pearler was captured by an officer of the Burma R.N.V.R. The action was commended by the Admiralty. Apart from smuggling and poaching, the political situation was such that Japanese were naturally suspect. The seas of the Mergui Archipelago are to a great extent uncharted, and the islands little known. The ubiquitous Japanese photographer ashore certainly had a counterpart in his fisherman-brother afloat. It was suspected that he might be on the lookout for submarine bases which the islands of the Archipelago could provide. The naval patrol performed an important duty, besides producing some valuable home-made charts and drawings of the unknown lesser island groups and channels.

In December, 1941, Japan struck. Her troops were reported by a planter to be advancing along the Pakchan river, the frontier line between Burma

and Thailand. At its mouth stands Victoria Point, then a subdivisional headquarters. The town rapidly emptied and, as the enemy drew nearer, a Burma M.Ls. stood by to cover the evacuation and the demolitions on the air-strip and to prevent attempts to capture the strip by a landing from small boats.

Burma was unprepared for war, and her forces were everywhere most inadequate, but especially so in the south. Intelligence being practically nil, no serious land invasion was considered possible, particularly while Singapore remained a bastion. Unfortunately the Japanese, using unfrequented tracks, penetrated Tenasserim, making a series of Jack-in-the-box appearances on the coast. At sea a very thorough inshore patrol of Burma M.Ls. was carried out.

A few days before Christmas the Japanese made a sudden advance on Bokpyin, a small coastal township about 75 miles north of Victoria Point. They took charge of the Police Station and installed themselves comfortably, beating off an attack by a Burma Frontier Force column and killing its commander. They remained in occupation until an M.L. slipped up the narrow and tricky creek to bombard the town with her three-pounder. Some casualties, among them a Japanese officer, provided a good argument for withdrawal. A detachment of our troops, landed from M.Ls. after the bombardment, found the town deserted. This minor operation definitely established the M. L. coastal patrol as an entity to be reckoned with.

In January, 1942, came the withdrawals from Mergui and Tavoy, and the Burma M.Ls. played their part to the full. Salvage, demolition and sea rescues were the order of the day. During this time only one small enemy launch was sighted, very close inshore, towing a barge. It was shot up and the barge sunk. Otherwise the enemy was content to leave the conduct of the war to the ground forces with the assistance of his aircraft.

At the end of January the Japanese descended upon Moulmein, the second port of Burma. There had been defection among the crews of the civil launches which might be needed for evacuation. Burma naval officers and men were accordingly despatched from Rangoon to stiffen the Chittagonian crews. After a brief but gallant defence our troops withdrew from the port on the morning of January 31. The evacuation was carried out under fire and in difficult weather conditions. Having evacuated the military, the men scuttled their launches, swimming to the western bank of the Salween against the strong tidal stream. There, a long tramp to railhead awaited them. The dousing and cold had brought on fever in some. However, they found some gin

Meanwhile, the M.L's. were continuing their work behind the enemy. Parties of soldiers and civilians escaping from Tavoy in country boats were picked up, the Andamans were evacuated of officials, and dumps of fuel in the islands of the Archipelago destroyed. A number of valuable launches and a couple of schooners were brought out from Moulmein.

One great asset of the naval patrol was its capacity to act as advanced wireless stations. In those days of no Radar, particularly after the loss of Tenasserim, a few minutes' warning of approaching enemy aircraft was vital for the safety of Rangoon. This the M.L's. were frequently able to provide.

Rangoon, after the first two raids in December, was in a parlous state. The city was ill-prepared, both from the point of view of aircraft and guns. What there were performed miracles; but the enemy, in spite of heavy casualties, managed to press home his attacks by sheer weight of numbers. The civil

population promptly began a general exodus. The effect was especially felt in the docks, where soon a dangerous shortage of labour was apparent. Ships bringing in valuable material cluttered up the port, it being impossible to unload them. There were no Docks Operating Groups available.

The Services, therefore, had to turn to and unload the ships. Burma naval officers and men, working night and day with practically no rest and little hastily-snatched food, were prominent. Stevedore's work is specialised and there were broken bones, but the ships were unloaded. Work went on during air raids. There was little time to stop and think about the probable effects of a bomb on the case of T. N. T. in one's hands when those feverish days of the Sittang battle well-nigh spelt disaster for the British forces.

Puny M.L.'s., with their armament of a three-pounder, machine-guns and four depth charges apiece, went out singly to hunt enemy submarines, investigating the areas where they had been reported. They were unsuccessful, but rescued many survivors of sunken ships and rushed them to hospital.

All too soon the time came when, if we were to keep the British forces in the field, Rangoon would have to be abandoned. Already the Japanese had shown their intention of cutting our small Army in two by an encircling move north of the city. On March 7 the final evacuation was carried out. The decision was given added point by the adventures of two M.L.'s. at the mouth of the river. Evidently the enemy had considered the time ripe for slipping by the patrols of the Delta. The M.L.'s. encountered several enemy-manned country craft fitted with outboard motors. These craft carried a force of the Burma Independence Army. One vessel was overhauled, whereupon the 50 Burmese aboard her promptly hoisted the white flag, much to the disgust of the crew of the M.L. and of their own Japanese officer. The others passed into shoal water and, though shot up, managed to make good their escape.

In the great demolitions of Rangoon port the Burma Navy took its part, sinking launches that could not be taken to sea, destroying stocks of oil and sinking harbour buoys by gunfire. They sailed out a number of seagoing launches, and many that were not, and took them to Akyab.

There now came about a division in the ranks of the Burma Navy. In Arakan the M.L.'s., supplemented by launches officered by Burma naval personnel and manned by Chittagonians, carried on a combination of deep-sea and "ditch-crawling" patrols, the intention being to deny the coastal waterways to the enemy. A Government launch with a Chittagonian crew under a Burma naval officer located him at Taungup during a deep patrol into the creeks.

After that it became hide-and-seek among the myriad, maze-like inland waterways of the Arakan coastline. Naval craft were few and the area vast. It was inevitable that the enemy should slip through sooner or later if he used shallow creeks and sampans. This he did.

One day an M.L. went into action with shore-based mortars at Minbya. A week later another M.L. was in action at Ponnagyun and sustained casualties. This was a mere 10 miles from Akyab itself. The enemy was in considerable force, whereas the Akyab garrison was small. Until overborne by the weight of enemy air attacks there had been aircraft on the aerodrome. Now there was none, and the A/A defence consisted of two Bofors with raw crews. Consequently, Akyab was raided daily, sometimes several times. In the circumstances it was decided to abandon the port after thorough demolitions had been carried out. The naval personnel blew up the wharf with depth

charges after the main buildings had been destroyed. Launches which could not be sailed to Chittagong through lack of personnel were scuttled. There were two valuable sides to the Arakan work; the evacuations and the rather Cromwellian pacifications of the countryside.

Refugees, mainly of the Indian cooly class, had trekked after incredible hardships from the Delta lands to Akyab and Kyaukpyu, the two seaports of Arakan whence it is estimated about 60,000 were safely evacuated to India. Twenty-three thousand left from Kyaukpyu, a small town on Ramree Island. Here they congregated in their thousands after Kyaukpyu had been given up as a port and ships no longer visited it. The townsfolk had fled into the jungle, where they felt safer from dacoits who descended upon and looted the town.

The place was a *cul-de-sac*, without food, sanitation, or order. An officer was sent from Akyab to organise the refugees and to evacuate them when the ships came. An M. L. stood by as W. T. guard with Akyab, all other links having been broken. For three weeks the work went on. A sort of martial law was proclaimed and, with the aid of military stragglers among the refugees, the officer-in-charge managed to shoot up dacoits and restore order. Food was obtained from Akyab and ships eventually carried the refugees to safety.

In Akyab itself, evacuation of refugees formed only part of the much larger problems of maintaining the place as a base for Naval operations, as a clearing station for valuable military stores and, until latterly, as an R. A. F. station. Burma naval officers and men spent much time and energy repairing water and light mains and engines, which were repeatedly and mysteriously smashed. Soon the water supply failed altogether and water was mainly had from merchant ships.

In addition to their sea patrols, the M. L's. had been busy penetrating the upper waters of the Kaladan river, and the devious creeks of the region where armed bands were terrorising the inhabitants. These dacoits were sometimes deserters from the local forces and were well armed. There was also a section of civilians always willing to take part in a little profitable trouble. The work of pacification met with considerable success. An M. L. fired on a band of insurgents at Kyauktaw, killed several, and put the rest to flight. Other M.L's. had similar encounters. Small garrisons were left at various points. They were maintained and, finally, evacuated by M. L's. The Senior Commanding Officer was awarded the D. S. O. in recognition of his services.

The W/T party in charge of the Naval Signal Station in Rangoon left with the last Army convoy, and was in the action at the Taukkyan road block north of the city. A W/T station was established at Maymyo as a link with the naval forces at Akyab. When the Army retreated, the W/T personnel accompanied it, carrying all W/T equipment. Set up for a short time at various places, the equipment had to be abandoned when the Burma R. N. V. R. party was forced to trek across the Chindwin to India.

The Marines, under Major Johnson, R.M., with three Burma naval officers and one Engineerroom Artificer, manned a flotilla of small launches of dubious reliability and sailed out of Rangoon up the Irrawaddy. Before reaching the Irrawaddy proper they were shot up from an ambush on a bank of the Twante canal. Thenceforward they lived through a number of exciting experiences, the excitement being accentuated by sketchy knowledge of enemy movements. They carried commandos to tasks behind the enemy lines when denials of railways and rivercraft were carried out.

The flotilla was at Yenangyaung in the opening phase of the fierce battle for the oilfields; it maintained contact between our forces on the right and left banks of the Irrawaddy; some of its personnel took part in the defence of Monywa on the Chindwin river when that town was unexpectedly attacked by the Japanese; always were the little ships subject to the unwelcome attentions of hostile aircraft, and frequently of shore-based enemy guns.

The reputation of the little force was so high, and the denial of the river so thorough, that it was reported that should any member of the force fall into enemy hands he would be roasted alive. Their last job was to ferry troops across the Chindwin under fire during the Shwegyin battle on May 10. For his services, one of the Burma Naval Officers won the D. S. O. All the craft of the flotilla had to be scuttled, and the detachment marched to India.

There followed a short respite, but one midnight in January, 1943, saw two Burma M. L's. nosing their cautious way through the tricky entrance of the Mayu River. The Army had advanced from the Naaf and captured Buthidaung, but south of it had been held up. Before Akyab could be taken the enemy must be cleared from Foul Point. This could be done only if the Mayu river was dominated and supplies prevented from reaching the Foul Point defenders. Hence the voyage of the two M. L's. Passing within a hundred yards of the enemy-held foreshore and negotiating gingerly the numerous sandbanks, they reached Buthidaung. For four months they operated at night far below the Japanese lines at Rathedaung.

In those confined waterways the craft were sitting targets for daylight air attacks. They were, therefore, draped with branches as they lay alongside a cliff above Buthidaung. They even lay, on occasion, under some trees opposite Rathedaung, itself in a small creek. Heavily camouflaged with leaves, they were unseen by Japanese "Zeros" patrolling overhead, and at high-water it was possible to observe from the deck the Japanese stronghold of Rathedaung hill, half a mile across the river.

In March the M. L's. were joined by R. N. landing craft and between them they saw action as the enemy made his "push." The British fell back. Under fire, the M. L's. carried out evacuations of troops, guns, stores and wounded to Buthidaung. Gradually they were forced into the narrow and shoal upper reaches of the river; but night after night they continued to patrol enemy waters until, on the night of Easter Sunday, the Japanese planted a number of guns at a confluence and, at point-blank range, blew one of the landing craft out of the water. This effectively bottled the river, and the naval craft came under constant mortar fire and night-bombing attacks.

Keeping a guard on the river below Buthidaung when the town was being evacuated they were able to assure the Army of security from waterborne troops. Then the craft sailed at high water for Taung Bazaar, it having been decided to keep them in the river for future operations. The monsoon took a heavy toll of the health of the maintenance party, besides which the ships were badly shot up by aircraft.

It was decided to abandon the M. L's. in favour of new Fairmile types; and the former were handed over to the Army for use as hospitals. Detachable fittings were unshipped and taken by the naval party which trekked back to India.

Burma M. L's. continued to combine with R. I. N. Coastal Forces in patrol work along the Arakan seaboard, and much could be said of subsequent

developments and achievements. However, the above is, in outline, the story of the formation of the little-known force. The B. R. N. V. R. began in war-time, was plunged almost at once into battle, and emerged with the tradition of pride in itself. It must be remembered that most of the men of the B. R. N. V. R. have their families in enemy hands and are grimly determined to alter that state of affairs.

THE BAILEY BRIDGE

"At the end of 1940 my job was concerned with designing of bridges. It still is. But they were not bridges to be used for the defence of Britain. They were bridges I hoped would carry our soldiers, tanks, guns and lorries on the offensive.

"But at the end of 1940 the designing of stronger bridges might have seemed unduly optimistic. It didn't appear likely that there would be any opportunity to make use of bigger tanks and larger vehicles. Nevertheless, an order for high-capacity bridges was made, and designs were considered.

"Such bridges had to be adaptable to carry the biggest vehicles, and economical for carrying the smaller ones; easy to manufacture in large quantities, and capable of erection without too much technical knowledge.

"For some time I had had the idea of using prefabricated girders which could be erected side by side or one on top of another to form complete girders of greatly varying strength—a kind of Tower Bridge. So I spent much leisure time in developing a design to a sufficiently advanced stage before I put it forward. The work at any rate enlivened some otherwise dreary hours spent in an air-raid shelter.

"By early 1941 the main features were put before the Ministry of Supply technical authorities; it was favourably received, and permission given to complete the design. Help came from all sorts of technical sources, and on February 14, 1941, orders were given for every effort to be made to produce sufficient girders for a full-scale trial within three months.

"The task was a tremendous one. But everyone exerted himself and, by May 1, the girders were finished. At last we were to demonstrate before the War Office the building and launching of a complete 70-foot long bridge.

"At 2 p.m. the officer-in-charge of the erection party ordered 'Double time, form bridge!' To our anxious eyes, how slow everything seemed! Delays were endless. Every pin seemed impossible to get in. Sapper so and so dropped a spanner somewhere and couldn't find it. Eventually the bridge was completed and launched across the gap and a lorry rumbled across the Bailey Bridge for the first time.

"We looked at our watches. We hadn't dared to do so before. It was 2-36 p.m. Surely there must be some mistake? No, there wasn't. A 70-foot bridge had been completed in 36 minutes. Yes, those sappers had been marvellous, as so many others have been since, and that lorry was the forerunner of thousands of others in all theatres of war.

"Since then thousands of tons of Bailey-bridge parts have been manufactured by contractors in small garages and in the largest steel works. . . . The finest job of all has been by the soldiers in battle. They have erected hundreds of these bridges sometimes under the most appalling conditions. Some of their feats, like the 1,200-foot bridge over the Chindwin in Burma, were real achievements."—*Mr. Donald C. Bailey, inventor of the Bailey Bridge, in a broadcast talk.*

THE FACTS ABOUT PENICILLIN*

BY PROFESSOR H. W. FLOREY, M.B., B.D., M.A., B.Sc., PH.D., F.R.S.

Soldiers in this war have good cause to be grateful to the discoverers of Penicillin, and to the scientists who are continuing their researches into its curative properties.

Professor Florey, who with Professor Fleming and a team of collaborators at Oxford, has played a leading part in the investigations, recently told the Royal Society of Arts in London something of the early history of the substance, and also revealed the lines of present research.

Space prevents us publishing the whole of his paper, but his remarks on the biological investigation and the work now being done are of great interest.

PENICILLIN is in no sense a cure-all. Only those diseases caused by sensitive bacteria are susceptible of cure by penicillin. Bacteria are, of course, microscopic living bodies which, under appropriate conditions, grow rapidly. The vast majority of these organisms are quite harmless to man, but a few kinds cause disease. These can be roughly divided into two groups by a stain known as Gram's Stain. Some take up and retain the stain, and are therefore called gram-positive; those which do not retain the stain are called gram-negative.

Here is a list of bacteria sensitive to Penicillin :

Gram Positive :

	<i>Connected Symptoms :</i>
Streptococcus pyogenes	.. Child-bed fever and severe local and general infections.
Staphylococcus aureus	.. Septic wounds, bone infections and many other forms of sepsis
Streptococcus pneumoniae	.. Pneumonia.
Streptococcus viridans	.. Infection of the heart.
Bacillus anthracis	.. Anthrax.
Corynebacterium diphtheriae	.. Diphtheria.
Actinomyces bovis	.. A form of chronic sepsis.
Clostridium tetani	.. Tetanus.
Cl. Welchii	..
Cl. septique	.. Gas gangrene.
Cl. oedematiens	..

Gram Negative :

	<i>Connected Symptoms :</i>
Neisseria gonorrhoeae	.. Gonorrhoea.
N. meningitidis	.. Spotted fever.

The following bacteria are not sensitive to Penicillin :

Relative insensitive :

Gram negative :

	<i>Connected Symptoms :</i>
Salmonella typhi	.. Typhoid fever.
S. gaertneri	.. Food poisoning.
Vibrio El Tor	.. A rare form of cholera.

* We are indebted to the Journal of the Royal Society of Arts for this extract from Professor Florey's excellent paper.

The following bacteria are almost or completely insensitive :

<i>Gram Positive :</i>	<i>Connected Symptoms :</i>
<i>Mycobacterium tuberculosis</i>	.. Tuberculosis.
<i>Gram negative :</i>	
<i>Pasteurella pestis</i>	.. Plague.
<i>Vibrio cholerae</i>	.. Cholera.
<i>Bacterium coli</i>	..
<i>Pseudomonas pyocyanea</i> }	.. Sometimes a cause of sepsis.
<i>proteus</i>	..
<i>Brucella abortus</i>	.. Undulant fever.
<i>Brucella melitensis</i>	.. Malta fever
<i>Bacillus of Friedlander</i>	..

Penicillin, except possibly in very strong solution, does not kill the bacteria, but is what is termed a bacteriostatic, that is to say, it is a substance which stops the growth of organisms without killing them. The penicillin preparations which we had earlier were bacteriostatic for sensitive bacteria at the dilution of 1 in 1 million, but we now know that these were very impure products. Pure penicillin will stop the growth of some kinds of bacteria at the astonishing dilution of 1 in 50 million or more.

It was further shown—and these are very important facts—that the activity of the substance was maintained with scarcely any diminution in serum (that is, part of the liquid portion of the blood), in pus (the material which comes away from an abscess), and in the presence of body tissues which have been damaged and partly decomposed. During the process of autolysis, as this decomposition is called, many breakdown products are formed, but none of them interfere with the action of the penicillin.

These properties differentiate penicillin very sharply from the sulphonamide group of drugs, which are rendered largely ineffective by pus or tissue breakdown products. Another important finding was that penicillin would act almost equally well when large numbers of bacteria were present as when there were few ; in either case penicillin would inhibit the growth of the whole lot. This again is in sharp contrast to the sulphonamides, which are rendered less effective if many bacteria are present.

The fact that penicillin is a very powerful anti-bacterial agent would not by itself differentiate it from a number of other mould products or from some of the familiar chemical antiseptics. But whereas nearly all such substances are quite toxic to body tissues, even concentrated extracts of penicillin exhibited practically no poisonous action on animals. As much as 10 mg. of our first crude extract could be injected with little harmful effect into a mouse weighing 20 g., and considerably greater amounts of more highly purified material. As was shown later, these amounts far exceed those needed to cure infections.

It was further shown that individual body cells, such as the white cells of the blood, were unaffected by concentrations many hundreds of times greater than those necessary to stop the growth of sensitive organisms. These white blood cells play a most important part in the protection of the body against bacteria which invade it. They move about freely in inflamed areas, take up the germs, kill and digest them. The germs in their turn produce poisons which may kill the white cells, so that there is a struggle for supremacy in the tissues.

From this you will comprehend how penicillin works : when administered to an infected animal or man in sufficient quantity it stops the growth of the

germs, thus giving the white blood cells in particular, and possibly other defence mechanisms, the opportunity effectively to attack and destroy them. It was found, too, that body cells grown in glass vessels ("tissue cultures") would survive and grow in concentrations very much greater than those necessary to produce bacteriostasis.

In animals the active material was rapidly excreted by the kidneys into the urine, and, to a lesser extent, by the liver into the bile. It was readily absorbed after injection under the skin or into the muscles or into the small intestine, but it could not be given by mouth because in the stomach there is hydrochloric acid, and acid destroys penicillin very rapidly. Neither can it be given by the large bowel because the bacteria there destroy it.

You will see the position at which we had now arrived. We had in our hands a substance which combined very low toxicity to animals with a very powerful action against disease-producing bacteria. We knew a good deal about its fundamental behaviour in the animal body. The most important step had now been reached—we had still to learn whether it would cure disease in animals and man.

It is worthwhile to digress for a moment in order to take up the question of antiseptics, so that the real significance of the experiments about to be described may be understood. Everyone is familiar with antiseptics, such as mercuric chloride, acriflavine, dettol, lysol, etc. All these are capable under appropriate conditions of killing bacteria—mark the word "killing"—but they cannot be used for injecting into the animal body because they have a damaging effect on animal cells as well as on bacteria.

All the antiseptics in common use destroy protoplasm (that is to say, the material of which living cells are made) quite quickly and this applies equally to the protoplasm of the bacterium and of the animal. As might be expected, although antiseptics can be used for sterilising instruments and similar purposes, little success has attended their use in dealing with infected wounds, still less their injection into the body.

A chemotherapeutic agent differs from antiseptics in that it selectively attacks the organisms causing the disease, without at the same time doing any serious injury in the body. For this reason it can be given internally or by injection. There are several examples of such chemotherapeutic substances. The one which has been known the longest, and is perhaps the most familiar, is quinine, used to combat malaria. Quinine is swallowed by mouth, passes into the blood stream, and exerts its beneficent action in killing the malaria parasite while being carried round to all parts of the body.

Another example is Salvarsan, the discovery of Ehrlich, produced after many years' work. It is an arsenic compound which has a very profound effect on the spirochaete of syphilis without being too toxic to be borne by the person suffering from the disease. Other substances were discovered which were effective against various tropical diseases, but only one class of substance, the sulphonamides, had been found of any use in the common diseases such as sepsis. Their use was, for various reasons somewhat limited. These are all true chemotherapeutic agents, not antiseptics.

The following experiments, from which proceeds the present great interest in penicillin, demonstrated that penicillin belongs to the class of chemotherapeutic agents. As far as the use of penicillin in medicine is concerned, this

was the crucial discovery. Such experiments are carried out in the following way.

Mice are injected with bacteria such as streptococci and staphylococci so that they will certainly die from the infection within one or at most two days. To show that a substance suspected of having chemotherapeutic properties is active it is necessary to secure survival of a substantial number of mice which would otherwise certainly die. In the case of penicillin this was accomplished by injecting some penicillin under the skins of the infected animals every three hours for several days. The drug was absorbed from beneath the skin into the blood stream, which carried it to the place where the infecting bacteria had previously been placed.

Knowing that penicillin was a soluble substance quickly distributed round the body, that it was not toxic to animal tissues and that it was just as active in the presence of body tissues as in a test tube, we were justified in hoping that it would stop the bacteria growing as effectively in the body as it did outside. And this proved to be the case. The groups of treated mice survived almost without exception, while the untreated mice all died. These first experiments indicated without any doubt that penicillin belonged to that rare class of drugs which can be used as chemotherapeutic agents.

From this demonstration it appeared that penicillin was likely to have very great potentialities in the field of human medicine. Penicillin at that time was extremely difficult to produce in substantial quantities, so some time passed before we were able to show its powers on man. It is only necessary to mention that a man weighs roughly 3,000 times as much as a mouse to give you some idea of the big increase in scale which had to be accomplished at this stage.

We again have to thank Dr. Heatley and his assistants for unremitting work in producing in the laboratory enough penicillin for the first injections in man. Even after months of work we could only treat six cases of severe infection but the results were most promising. It is interesting to look back at this period, when we were many times assured that the yield of penicillin was so low and the substance so unstable that it would be unlikely to have a practical bearing on medicine.

The first human patients were treated in the winter and spring of 1940-41, at the time of the worst bombing of England. It seemed improbable that much headway could be made in getting large-scale production started in this country. In these circumstances Dr. Heatley and I went to America, which was not then at war, to ask them whether they could put some of their great resources into the production of penicillin, so that at least some extensive clinical trials could be carried out. We were extremely fortunate in coming into contact with Dr. Coghill, Director of the Fermentation Division of the Department of Agriculture's excellent research laboratory at Peoria, in Illinois. The work which he and his colleagues have done on the selection of high-yielding strains of *Penicillium notatum*, and on the modification of culture media, has greatly increased the yield which can be obtained from the mould, and has played an important part in the large-scale production of penicillin.

While this work was being initiated in America, enough material was made in Oxford and by Imperial Chemical Industries to enable some 18 patients with severe infections, most of them caused by the staphylococcus, to be treated in Oxford. These results were again of such great promise that any effort to produce the drug on a really large scale was clearly worthwhile. This was more

so since some among the bacteria susceptible to penicillin are those which cause some of the most common and universal infections, including those of war wounds.

From that time the work branched in three directions. Firstly, it was clear that it would be very desirable to make the substance synthetically by chemical procedures without the intervention of the mould. Work is now proceeding along these lines in Oxford, where Dr. Chain and Dr. Abraham are working with Sir Robert Robinson and his colleagues, and elsewhere hundreds of chemists both in this country and in America are engaged on this important problem.

Progress in this work cannot be reported as it is now in the secret category, but the fact has already been published that pure penicillin has been obtained. This was done in America and in Oxford at about the same time, and it is possible to show you a slide of crystalline sodium penicillin. Every resource has been mobilised to deal with this chemical question.

The second, and more immediately practicable line, has been to increase the manufacture by means of the mould to a really large scale. This has involved a large number of intricate technical problems, which have been tackled along different lines by various commercial firms, both in this country and in America. As a result of their efforts penicillin can now be issued by the kilogramme, although, of course, the supplies still fall lamentably short of the demand.

The third line has been to explore further the use of penicillin as a curative agent, and of this perhaps you would like me to say a little more. There are two possible ways of using penicillin. Firstly, it can be injected into the muscles or veins so that it is carried around in the circulation to the parts which are being attacked by the infecting bacteria. This method is obligatory in the more serious and widespread diseases such as pneumonia, diseases of the bone and septicaemia, where diseased tissues cannot be reached by any other means. Although in many cases this is a very effective method, so much so that it has from time to time given rise to sensational reports in the press, it has the disadvantage of requiring relatively large amounts of penicillin since the drug is rapidly excreted by the kidneys. To keep up the necessary concentration in the body is very much like trying to keep a bath full with the plug out.

Secondly, penicillin may be used as a local application to the affected part. This can only be undertaken if every part of the infected tissues can be reached by the penicillin, and a good deal of the success of local application depends upon surgical ingenuity in ensuring that the penicillin, which is rapidly absorbed from a wound, is kept in contact with all the infected tissues for a sufficiently long time to exert its action. At the present time a great deal of thought and study is being given to the problem of war wounds and how best to utilise penicillin both locally and generally for their treatment.

As you are probably aware, the bulk of the penicillin supplies now available are reserved for the use of the armed forces—a decision with which no one will disagree—for, in spite of all modern technical improvements, the infection of battle casualties is still a serious problem. From this point of view the discovery of the chemotherapeutic properties of penicillin came at a most fortunate time.

In passing, it may be mentioned that the beginning of the work on penicillin had nothing to do with the war, but was initiated before the war as a purely academic investigation. It is just one more instance of the good fortune which

has surrounded the work from start to finish, that the substance is proving and will prove of the greatest assistance in dealing with the wounded.

The increasing supplies of penicillin now available permit of extensive explorations of its use in many diseases. Perhaps the most striking recent addition to knowledge is that of the Americans, who have discovered that penicillin is apparently effective in treating syphilis. Patients may harbour this disease for many years, and it is always difficult to state categorically that a cure has been achieved, but the preliminary results give every hope of more effective treatment of penicillin than by any other means at present at our disposal.

Another excellent development since larger supplies have become available is that penicillin is given as a preventive instead of as a last resort. In battle casualties especially the effort is being made to prevent serious sepsis from developing by giving penicillin at a very early stage.

SOME USEFUL BOOKS

The Infantry Journal of America produces an excellent series of books for soldiers everywhere, and the publishers have most kindly presented some to the Library of the U. S. I. of India.

Among them is "The German Army," by Dr. Herbert Rosinski, who describes the historical background, the organisation, training and strategic ideas of leaders of the German Army.

"Fear in Battle" is the result of a questionnaire sent to 300 Americans who fought in the Civil War in Spain. The results are an interesting study in psychology; one was that "the commonest symptoms of fear were pounding heart and rapid pulse, tenseness of muscles, sinking feelings, dryness of mouth and throat, trembling, sweating;" eight out of 10 men said it was better to admit fear and discuss it openly before battle; thinking that the enemy is just as scared as you are is helpful in controlling fear.

"The Lost Battalion" is a fascinating account of the experience of an American battalion in Argonne drive in France on September 26, 1918.

A "German Dictionary" for the soldier is of great value. The first section gives the English and equivalent German words, together with a guide to pronunciation, while the second part is from German into English.

"The Capture of Attu" and "Islana Victory," both containing first-hand accounts of the fighting in Attu and the Kwajalein Atoll.

"Leadership," by Colonel E. L. Munson, Jr., contains a great deal of valuable information, interestingly written.

"Fundamentals of Mechanics," by Dr. M. C. Mott-Smith and Marjorie Pan de Water contains a mass of information, and can be thoroughly recommended.

The Infantry Journal is to be congratulated on the production of such a fine series of handbooks, and the Institution is very happy to be able to give members an opportunity of perusing them.

AN I.A.C. RECCE REGIMENT IN ITALY

By MAJOR J. M. HOWSON.

OUR REGIMENT, the reconnaissance regiment of the 8th Indian Division, landed at Taranto on September 25, 1943, the vehicles and a small maintenance party arriving about a week later. We had been reorganised as a Divisional Reconnaissance regiment very shortly before leaving Syria, and nobody had any very definite ideas as to how we were to be employed in the close country of Southern Europe.

The organisation of the Lancer Squadrons was three troops, each of four Bren-gun carriers. Two carriers in each troop had a 19 Radio set; one Mortar troop of 3×3-inch mortars in mortar carriers, with the troop leader in a Bren-gun carrier with a radio set; and, finally, the Rifle troop, which proved its worth time and time again when cratered roads and the everlasting rain made all movement by H.T. very nearly impossible.

This latter troop, commanded by a British Officer, consisted of two half-troops of fifteen I.O.Rs., each commanded by a V.C.O. One half-troop was carried in Tata-wheeled carriers; the other half in 15-cwt. G.S. Later, the whole troop, except the Troop Leader, was carried in armoured 15-cwt. (White Scout) cars. The Troop Leader travelled in a wheeled carrier, and had a radio set. Not until March was each half-troop issued with 38 sets, which were very necessary for dismounted patrols.

Squadron headquarters consisted of two Bren-gun carriers, each with a set, one for the Squadron-Leader and the other intended for the Squadron-Risaldar who, in practice, was with and controlled the Squadron "B" Echelon. The Squadron second-in-command travelled in a wheeled carrier, with the "rear link" set. The disadvantage of this arrangement was obvious from the beginning, as the performance of the two types of carriers was very different, and in actual practice Squadron H.Q. never operated under this organisation.

There were two Jeeps in Squadron H.Q., one of which was fitted with a radio set; we removed the set from the Squadron-Risaldar's carrier, fitting it into the second Jeep. These two Jeeps became the Squadron H.Q. vehicles in all operations, the system working very well.

* * *

During the time the Division was concentrating, unit and sub-unit commanders went forward to be attached to their opposite numbers in 78 Division. This attachment proved exceedingly useful, as 78 Division had been operational since the initial landing in North Africa. From their Reconnaissance unit (a regiment of the Reconnaissance Corps), we were able to get a first-hand picture of some of the problems we were to come up against later. Our first experience of shell fire, although it was only light, harassing fire, showed us that this was a factor that had not been sufficiently studied in "schemes."

The Division took over its first sector of the line at Larino, on the Biferno River, the first of the rivers running across our front. "A" Squadron was the first to become operational; but owing to the hilly ground and cratered roads the advance proceeded slowly, and reconnaissance, mounted at any rate, was unnecessary. Our Regiment was used to watch the flanks and to maintain contact

with flanking formations. Each Squadron was normally under command of a Brigade; and we had trained with these Brigades all the summer in Syria.

During this time a carrier troop of "A" Squadron was forming a flank patrol, working dismounted, when a small party of German cavalry managed to work round their position and put in a mounted attack on their carriers. The attack was not successful, but it taught us a valuable lesson about the increased vulnerability, in close country, of vehicles left only with their drivers.

When the weather broke in November, movement in the forward areas became a nightmare of mud and diversions around the many craters. Mounted recce ceased completely, and dismounted patrols were sent out. Contact with the enemy was spasmodic and mines and small Boche foraging parties were our main concern.

The German habit of mining the verges of roads and placing the mines deep in the mud to avoid detection and to explode after several vehicles had passed was difficult to compete with. The Squadron-Officers' Mess Cook, a South-Indian Christian, was blown up on a mine but, except for shock, he was soon fit again and travelled many a mile before achieving his ambition of an audience with the Pope in Rome.

Toward the end of November the Regiment was spread over the whole 20-mile Divisional front. Deep patrolling was started for identification, and to endeavour to pin-point enemy positions in advance of his winter line. Roberts' patrol about this time was an example of what a well-led dismounted patrol can do in close country.

Two escaped P.O.s. had been picked up late one night and told us that the Germans were living in a small village called Rosello, about four miles behind their FDLs. The village was about eight miles from where the Squadron was harboured. Roberts, with twelve men, went out at dawn the next morning, with orders to confirm the enemy position and, if possible, to capture a prisoner. The patrol had gone about five miles across country and were lying in a thick wood watching a road which Boche M. T. was using, when a troop of enemy cavalry halted in the wood, fed their horses and had lunch within 50 yards of Roberts' party. The Boche evidently did not know British patrols would be operating in the area and their Teutonic efficiency let them down as the patrol was not discovered.

Roberts eventually arrived at Rosello at about 1530 hours. As the village appeared to be completely free from Boche, he left a Bren gun covering him while he and the rest of the patrol advanced down the main street. About four houses along, on looking through a window, he saw a party of Germans sitting round a table in their shirt sleeves, having tea.

While the patrol was digesting this remarkable sight two other Boche walked out of the front door with their hands in their pockets, whistling. One was shot in the stomach and the other prudently put up his hands. A grenade was thrown into the tea party, and Roberts left with his prisoner, leaving the village buzzing with recrimination and machine-gun fire. We suffered no casualties. The prisoner was a private of the 1st Parachute Regiment and was the best physical specimen we came across in Italy. Roberts was awarded the M.C.

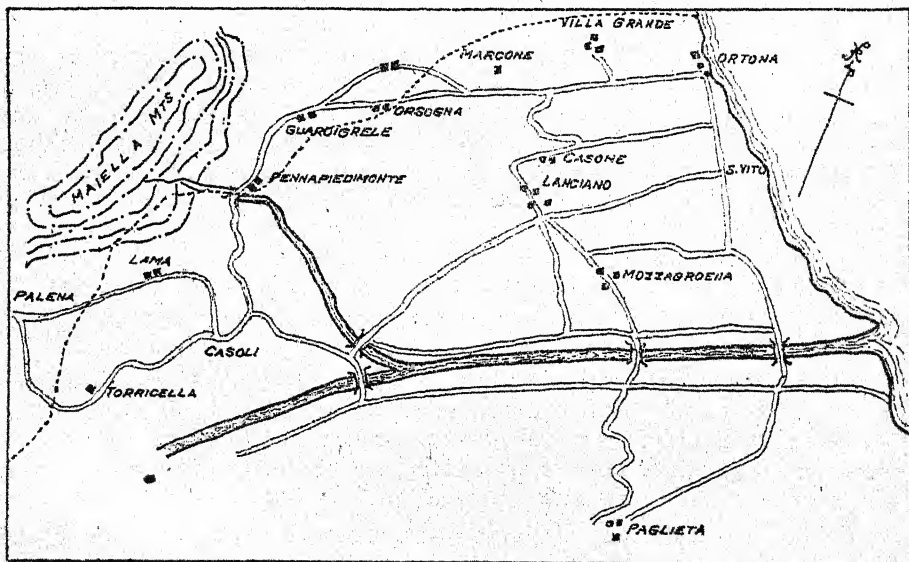
Humber armoured cars, mounting a 37-mm. gun, were issued for the Sangro battle, one carrier troop in each Squadron being issued with them. Here we saw how versatile is the I.O.R., for although we had never had Humbers before,

and only two N.C.Os. in the Squadron had done a course on the 37-mm. gun, our Sikh squadron got across the Sangro that night without incident, and all were in action the next day.

Crossing the river was unpleasant. The German artillery had the one and only Bailey bridge registered, and before the Squadron reached the bridge, a vehicle of the unit in front was hit and the bank completely illuminated. But we were lucky and got all across without serious damage. Next day we were attacked by four FW-190s. They came in very low over the nearby escarpment, and the first warning we had was their cannon opening fire on our armoured vehicles. Luck was with us and our total damage was one man wounded and one armoured car slightly damaged. This attack, the first of many that day, improved our aircraft recognition out of all knowledge.

Pat, the Squadron second-in-command, had a narrow escape later in the day. He and one I.O.R. were recrossing the river on foot to collect a spare for the damaged armoured car when they were attacked in midstream by two MEs. Neither was hit, though each had to decide quickly whether to submerge in the fast-flowing icy water or to stay above water and risk getting shot. Both took to the water and, later, returned very wet and cold.

We had a remarkable instance of the protection afforded by the armour-plating of the Tata carriers against splinters, for a 500-lb. bomb fell within 25 yards of the Squadron H. Q. carrier and, except for covering the crew with mud and riddling the thinly-plated panniers on the side, no damage was done.



The Squadron assisted the Brigade in its advance towards Lanciano, but before arriving there a rifle troop was sent off under Roberts to find out if the town was still occupied. It was found that a party of German sappers was preparing a bridge for demolition, but the sappers withdrew, leaving the bridge full of explosives, but otherwise undamaged. Next morning the Regiment, operating under the direct control of the C.V. for the first time in the campaign, entered the town.

"C" Squadron cut the Castelfrantano road, "A" Squadron went east towards S. Vito and "B" Squadron went straight through the town. Lanciano

was the first large town we had entered; the inhabitants were very friendly. The vermouth they gave us was probably very good, though no drink to have before breakfast.

Following day "B" Squadron went on to Basone. The leading Troop Leader, having dismounted his troop, managed to turn the enemy's flank, and an ALD distinguished himself by stalking and capturing, single-handed, an enemy machine-gun. From prisoners taken, a new identification, the 90 Infantry Division, was obtained.

In January, to enable the infantry to reorganise and refit, the Regiment took over a sector of the line around a small village, Marcone. We were dismounted about 800 yards from the Boche positions and under direct observation. In February we were ordered to extend our front and the Regiment was moved over to the left flank, up against the Maiella Range. One squadron was at Torricella, one at Lama and the third at Casoli. Weather was very cold, with heavy snow, and special white clothing was issued. Later, the third squadron had to take over opposite Pennapiedimonte, and thus the whole Regiment was in the line at one time.

The squadron near Pennapiedimonte had four Bailey bridges on its L. of C. These bridges were named after the patron saints of the United Kingdom, and were frequently attacked by Boche patrols who tried to destroy them. St. George's Bridge was blown one night and the Germans, with a sense of humour usually absent, drew a caricature of the Prime Minister on the bridge nameboard, leaving it beside the blown bridge. Two nights later, in attacking St. David's Bridge, they ran into an ambush and withdrew, leaving bloodstains on the ground.

Early in April the Division was relieved by the 4th Indian Division and we moved across to the West Coast to take part in an exercise for the battle for the Gustav Line. One of our squadrons which took over a sector on the Rapido River had to relieve a squadron of French Spahis and, as a result, the squadron was the left-hand unit of the 8th Army, the French being the right-hand one of the 5th Army.

To ensure co-operation a common post was established, consisting of one troop of the squadron and one troop of Spahis. This post worked admirably, though the language problem was occasionally difficult. The post could not be visited during the day as it was under enemy observation, and the respective squadron commanders used to visit it after dark to straighten out any difficulties. It was remarkable that there was no trouble in the post, as it only consisted of two small rooms in a shell-shattered house and no movement was possible outside by day.

It speaks highly for the tact of the V.C.O. and the French *sous-officier* that there was never any friction. One day this post was heavily shelled by two tanks and the troop suffered three casualties, one man killed and two wounded, while the French had one man killed. The M. O. of the Spahis immediately went forward in a half-track vehicle to evacuate the wounded, being very heavily shelled while doing so. By this gallant action he undoubtedly saved the life of one of the wounded men, who had incurred a bad abdominal wound.

While this squadron was in the line final preparations for the attack were being completed. "A" Squadron, it was decided, should make a demonstration crossing of the river in order to divert the enemy's attention, while the main crossing by two Brigades was to be 4,000 yards to the north. A heavy artillery bombardment preceded the attack at 2345 hours on May 11. "A" Squadron's

demonstration was successful and the storm of mortar shells that burst on them might have been employed against the infantry attacking further north. Once a Bailey bridge was made "A" and "B" Squadrons crossed the river mounted, and "B" relieved two companies of a Highland Regiment on the left flank of the Division.

With the cracking of the Gustav and Hitler Lines the general action became mobile and the Regiment was employed as a mounted unit; but that is another story. During the winter we had been employed in a variety of unexpected roles; but all ranks had become used to operating dismounted—and, moreover, with a skill that surprised some of their officers.

Let me finally pay another tribute to the Indian soldier. Properly clothed and fed, he can fight in a European winter as well as his more Westerly brother-in-arms. I saw no more inspiring sight than an Indian patrol setting off in snow clothing, with the snow a foot deep, intent on doing more good work against the Boche.

DOGS AS MINE DETECTORS

"Dogs trained to detect mines have been at work on the European battle-fronts for months now. They can find mines which the most high-priced detecting equipment cannot.

"When they were being brought from the landing port, the platoon bringing them stayed at a town where there was a big museum of enemy mines, and the experts there were a little bit sceptical. So a test field was sown with seventy-five mines of various kinds, including glass and wooden ones. The dogs found them all except one—and that was a very small mine which, when dug up, was found to have been accidentally buried without any explosive in it.

"Even the sceptics agreed that that one didn't count, since the dogs are trained to find mines that *will* explode."—*A speaker from the B. B. C.*

THE LOCAL OFFICERS OF THE NIZAM'S ARMY

BY BRIGADIER H. BULLOCK, O.B.E., F.R.HIST.S.

THE NIZAM'S Army was from 1853 known as the Hyderabad Contingent. In 1903 Lord Kitchener's reforms dissolved its artillery component, and renamed and renumbered the cavalry and infantry. In 1922 the cavalry became the Royal Deccan Horse and part of the 8th K. G. O. Cavalry; and the infantry became the various battalions of the 19th Hyderabad Regiment, of which the 1st and 10th Battalions retain their ancient appellation of "Russell's," for they were raised by SIR HENRY RUSSELL, BART., Resident at Hyderabad from 1811 to 1820, who may be deemed the founder of the Nizam's Army in its regular form.

The officers of the Nizam's Army fell into two classes; first, those seconded from the East India Company's regular armies of Bengal, Madras and Bombay; and secondly, those not holding commissions in the East India service—commonly known as "Local Officers." Some of these "Locals" were drawn from His Majesty's service, that is to say, from the Royal Navy and from British regiments which ranged from the Life Guards to the Newfoundland Fencibles: others had never held either the King's or the Company's commissions, and of these many indeed were—theoretically at least—debarred from doing so by their mixed blood.

There were 113 of these "Locals," and for the last twenty years or so I have been turning a sort of genealogical searchlight upon them, as a hobby deriving from my former service with both of "Russell's" battalions. Many of the officers remain almost complete mysteries, but I have managed to illuminate the careers of quite a few; and some account of the more striking of these affords an interesting cross-section of the officer cadre of a large body of the Indian forces a century or more ago.

A rough racial classification of the 113 "Locals" shows that 42 were Europeans and 21 Eurasians, the remaining 50 being undetermined. Of the Eurasians, some of the most remarkable were the former "military adventurers," a few of whom had been in the Nizam of Hyderabad's service as early as 1797, having doubtless been introduced thereinto with the intention of counteracting French influence which was predominant at Hyderabad until 1798 when the French contingent was surrounded and disarmed without bloodshed by the Company's troops.

Pride of place must be given to Major Charles Freeman, who ranked as a Local officer from June 5, 1797, which in all probability represents the date on which he had entered the irregular forces as a military adventurer. Son of a regular Bengal Army officer, apparently by a Madras Christian mother, though an able man and a competent officer, he could talk only broken English, as a passage in his comrade, Meadows Taylor's, autobiography attests. He retired in 1840 with a pension of a thousand rupees a month, and died about six years later. One of his sons followed him as a Local officer; another seems to have become a surgeon in the Nizam's Army; and a daughter married a regular officer in the Bombay Army.

Another Eurasian *ex* military adventurer was Major Charles Hay Elliot, who seems before 1803 to have been successively in the service of the Nizam, Daulat Rao Scindia, Jaswant Rao Holkar, and the Sar Subah. He was in the

Seringapatam campaign of 1799, later commanded a brigade in Berar, and was severely wounded at the battle of Nagpur in December, 1817. Two years or so later he died, leaving bequests to his children by a plurality of consorts.

Of the same class was Captain William Power Blake, who was in the Nizam's service in or before 1800 and rose by 1823 to the command of the Garrison Battalion, with pay at 868 rupees a month. One of his daughters married firstly a regular Madras Army officer, by whom she had a son who died in 1912 as a Deputy-Surgeon-General of the (British) Army Medical Staff: her second husband was a Scots doctor of the Madras Medical Establishment.

Perhaps the most curious of the former military adventurers—he was not a Eurasian—was John Beckett, who on failing to secure a commission in the British army entered the Maratha service as an officer in the regular brigade commanded by the Dutch Captain John James Dupont, and in 1803 was holding the appointment of aide-de-camp and confidential secretary to the commander-in-chief, the French General Perron. The secret history of the outbreak of war in that year suggests that Beckett played no small part in inducing Perron to abandon his allegiance to Scindia and in winning him over to the British side.

They went down country together to Calcutta, whence Perron soon returned to his native France (where his daughters by an Indian consort married into the old nobility and have many titled descendants to-day) and Beckett was rewarded with Rs. 16,000 from Perron, as well as Rs. 8,000 subsistence allowance from the British in the first two years.

Failing to obtain a commission in one of the regiments of His Majesty's Light Dragoons, Beckett took the more humble post of schoolmaster at Monghyr; and from this he seems to have gone direct in 1812 to the Nizam's Dominions, to command a battalion of infantry newly raised by Chandu Lal. Then he became the first commandant of the Russell Brigade (the infantry portion of which is now the 1st and 10th Battalions (Russell's) of the 19th Hyderabad Regiment); but mishandled it, retired and returned to Monghyr, where he lived for many years with, it is said, a Kashmiri wife who died in 1832. Finally he disappears, but he may be the same as the John Beckett whose death at Portoferraio in the island of Elba in April, 1841, was announced in the contemporary Indian press.

Three officers were French, the brothers Edward and Adolphe Mottet, and Captain Paul Lerride. Some, if not all, of them had previous commissioned service in the Royal Army of France, and caused some heartburning by claiming to take rank in the Nizam's Army by virtue of their French seniority. The Mottets were sons of a Chief Justice of Pondicherry: they had three sisters, all closely connected with the Nizam's Army—Marie, who married Sir Henry Russell, the Resident; Victorine, who married General Sir John Doveton, junior, of the Madras Army, and who commanded a division of the Nizam's Army; and Virginie, whose husband was Captain George Holroyd of the Bengal Army, who commanded the Resident's Escort and whose brother was one of the naval officers serving with the Nizam's cavalry. In fact, it was quite a family party, for three other Dovetons served with the Nizam's Army at various times.

The third French "Local," Lerride, commanded the 2nd Russell's Infantry at the battle of Mahidpur in 1817, and was wounded on that occasion. He later commanded the Russell Brigade. There was also a Dutch officer, Captain A. L. Topander, but little is known of him.

Three officers of the Royal Navy were amongst the "Locals"—Captain Charles Holroyd, Major John Arthur Moore, and Lieutenant David Rice—all

lieutenants R. N. The first two were cavalry officers, and thus authentic specimens of a genus which is sometimes supposed to be mythical, the Horse Marine. Their presence in the Army in India is to be attributed to their having found themselves on half pay, together with many other officers, after the Napoleonic wars.

Moore had seen quite a lot of service afloat—in the *THUNDERER* at the passage of the Dardanelles in 1806, and in *H. M. S. ORONTES* in the West Indies till 1815. In some mysterious manner he contrived to be present at the battles of Kirkee and Poona in 1817, and when the Army-of-India medal was awarded—to survivors only—in 1851 he received it with a clasp for these two engagements. Amongst other activities, he became a F. R. S. and a Director of the East India Company after his retirement. He served as a Local officer from about 1817 to 1838, holding the appointment of Military Secretary to the Resident for the last eleven or twelve years, which made him the administrative head of the force.

Marrying the sister of another "Local," he had numerous children, two of whom entered the Bengal Army—one of these was the father of Lieut.-Colonel Moore-Brabazon, the pioneer aviator and Cabinet Minister who was recently created Lord Brabazon of Tara—two the Bengal Civil Service, and a fifth son was private secretary to Lord Randolph Churchill. It was of this last that Lord Rosebery wrote that he "was conspicuous even in that remarkable collection of ministerial assistants that the last half-century has witnessed: of men not unfrequently much more fit for high office than their temporary chiefs".

Another Irish officer who saw service at sea was Major George Robert Fraser, who entered the Royal Marines in 1796 and served in the *REGULUS* in the West Indies and elsewhere till 1798. Having been lodged in prison to prevent his marrying whilst a ward in Chancery, he got married there on his 21st birthday; and next served in a succession of British regiments. When in India with *H. M. 65th Foot* in 1809, he sold out on being offered the command of one of the Nizam's two brigades of regular infantry, which he commanded till 1817. Then he entered the Nagpur service (which also maintained a small cadre of Local officers) and, one of his sons joining him, they served there till 1830, when all the Nagpur "Locals" were discharged with a gratuity. Then the old major retired to France, where he died six years later: "he had a hot temper but a strong and resolute character".

One of his daughters married Major-General Sir Ephraim Stannus, the lieutenant-governor of the East India Company's military academy at Addiscombe, where he was as distinguished in his day for the extreme violence of the language with which he apostrophised the cadets as for his utter failure to keep discipline amongst them. David, the son in the Nagpur service, had several children: a son became a general in the Bengal Army, and a daughter, by her husband General Hatch, Judge Advocate-General in India, was mother of the late Dowager Countess of Clarendon. David himself, after relinquishing his military career, held a succession of "uncovenanted" civil posts, such as Collector of the Pilgrim Tax at Gaya and later Assistant Collector of Calcutta.

It has been said that while talent is transmitted, genius may occur in any family. No officer of the Nizam's Army can be claimed as a genius, but there are examples of the transmission of talent. The two families just mentioned, Moore and Fraser, might be cited as such; but much more striking are the Robisons.

John Robison, professor of physics at Edinburgh University from 1774 to 1805 (see *Dictionary of National Biography*) had two sons in the Nizam's Army. John, the elder, also figures in the *D. N. B.* as a scientist and inventor. He was in India from 1802 to 1815, first in business at Madras and Hyderabad. Then he undertook a contract for the establishment and maintenance of the Nizam's artillery, including the provision of cannon and ammunition, and this led to his appointment to the command of the artillery corps.

Having made a considerable fortune, he returned to Scotland and turned his talent to science and invention along many lines. In 1837 he received the Hanoverian Guelphic Order, and he was knighted in the following year. His grandson, General Sir Montagu Gilbert Gerard, K.C.B., commanded the Hyderabad Contingent, 1896-99; and two of the general's sisters, Jane Emily (who with her brother is in the *D. N. B.*) and Dorothea, were well-known novelists, while the general himself wrote an autobiography which is far above the ordinary run of military reminiscences. The professor's second son, Hugh, after studying under his father, entered the 28th Light Dragoons and served in the Nizam's Army from 1811 till his death in 1849.

Of his children, one died as a major-general in 1914, whilst a daughter married Colonel William Orr of the Madras Artillery, who commanded the field force of the Hyderabad Contingent during Sir Hugh Rose's brilliant and arduous campaign in Central India. The whole story of the Robisons—here indicated in the barest outline—seems a good example of what talent combined with Scottish application can achieve.

Taking the *Dictionary of National Biography* as the recognised yardstick of British achievement or notoriety—though it is overloaded with literary fourth-raters—we find that two of the 113 "Locals" figure in it, Sir John Robison and Captain-Commandant Philip Meadows Taylor, whose novels *The Confessions of a Thug* and *Tara: A Mahratta Tale* are still in print. The fathers of five more officers are in the *D. N. B.*—General Sir Thomas Hislop, G.C.B., 1st Bart., commander-in-chief of the Madras Army from 1813 to 1820 (whose son in the Nizam's Army may have been illegitimate); Sir George Sowley Holroyd, judge of the King's Bench, whose two sons have already been mentioned; Professor John Robison; and Colonel James Skinner, C.B., the military adventurer who raised the famous Skinner's Horse—his son Hercules was specially admitted as a "Local" as late as 1834 and transferred to the Bengal Army in 1852, serving therein for some nine years.

Titles and decorations are not well represented in the list. Unless they were officers of the King's service, "Locals" were not eligible for the Order of the Bath. The Order of the Star of India was not instituted till 1861, and the Indian Empire not till 1878, twenty-five years after the last Local officer had been pensioned. But Meadows Taylor received the C.S.I. in 1869; and Sir John Robison, as has been stated, had the Hanoverian Guelphic Order. There was one baronet, Sir John Bury Gordon, 5th and last baronet of Park. He had served in the Coldstream Guards in the Low Countries and Egypt before he came from the 13th Light Dragoons as a major to the Nizam's Army about 1822. He raised the 4th Nizam's Cavalry, which from 1903 to 1922 was known after him as the 30th Lancers (Gordon's Horse), and died at Madras in 1835, without children by either of his marriages, when the baronetcy became extinct or dormant.

Connections with the peerage were also negligible, but one of the Nagpur Local officers came of remarkable parentage, for his great-great-great-grandfather was King Charles the Second and his mother was a Jamaican negress.

Lieutenant Fitzroy's father, of the ducal Grafton family and a son of Lord Southampton, was a member of the Bengal Civil Service: his illegitimate son served first as a Bengal "Local," in the oddly-named Dromedary Corps and other units, and then in Nagpur. After retirement he married a widow of fortune and died in 1843. I do not know if he left any descendants.

No account of the Nizam's officers would be complete without some reference to the Palmers, and we may conclude with an outline of the Hyderabad branch of this family. The central figure was Captain William Palmer, Eurasian son of General William Palmer of the Bengal Army and his Muslim consort Faiz-un-nissa. Born in 1781, William entered the Nizam's service at the age of 18 and by 1805 was commanding a body of horse on a lucrative contract system, which by his own statement brought him in nearly seven thousand rupees monthly profit in a gross thirty thousand. He was constantly employed on active service in all sorts of responsible and dangerous enterprises, and enjoyed the confidence and respect of both the Nizam and the Resident. He was in close touch with Wellington in the latter's victorious assault on the Mahrattas in 1803-04.

Later he founded at Hyderabad the great mercantile firm of William Palmer and Company, which developed into a bank whose main activity was to lend vast sums of money to the Nizam's Government at even vaster rates of interest. In this concern Russell, the Resident, and members of his staff became involved as hidden partners; and the resulting crash and controversy have not died down to this day.

Palmer himself continued some of his military activities concurrently with his business pursuits, and many of his relatives were connected with the Nizam's Army, notably Meadows Taylor, who married one of his daughters. The old man died at Hyderabad in comparative penury in 1867, at the age of 86. Besides various Muslim consorts he had a "third wife," the widow of two regular officers, who survived him by ten years.

The last of the Local officers whose death has been traced died in 1887, but Major Moore's widow lived till 1905—some 78 years after her marriage—and one of Meadows Taylor's daughters died as recently as 1926, at the age of 90.

MAN VERSUS WEATHER

BY CAPTAIN H. J. HAMBURGER, R.A.M.C.

THE HISTORY of the Natural Sciences is not so much a history of errors, as a history of controversies. Many competing views have had their due places allocated in the debate of Science, which seems never ending. But no agreement has been reached on the share which heredity and environment can claim in the shaping of the natural history of living beings. It is safe, though, to say that life in its present form is a result of a great number of determining factors which all come under one of two headings—heredity or environment.

Atmospheric conditions surrounding living creatures mould powerfully their existence, and in this we see environment at work. The sum-total of these atmospheric conditions is the climate. The study of this is the Science of Climatology. The hourly or daily changes in all or some of the atmospheric conditions in a given locality make up what is called "weather." The weather of a place is always changing; the climate remains constant.

Climate as a whole and its various elements influence the processes of life. These influences are studied through a science called Bioclimatology. Bioclimatology then leads us to examine how climate acts upon men, animals and plants and also how these may be able to influence climate in their favour. Man, always most solicitously looking after his own welfare, soon found a real or apparent relationship between weather, climate, seasons and sickness and sick people. Hippocrates deals with it in the book "About air, water and locality."

Medical science all through the centuries since its beginning in the dim morning of early history has given atmospheric effects an important place in the causation of disease. With the beginning of the bacteriological era this conception fell into oblivion. The tremendous successes of bacteriology, epidemiology, hygiene and chemotherapy silenced rightly a science which ascribed malaria to the effects of a vague miasma! The greater part of pre-bacteriological knowledge of atmospheric effects on organisms is obsolete.

But the last decade or two have seen in Europe a renaissance of the study of climate and weather as factors responsible for the behaviour of living things. Bioclimatology has considered facts and data of meteorology, medicine, hygiene, statistics, zoology, botany and engineering. It is a science of co-ordination growing up in this era of specialisation.

Subtropical and tropical countries show climatic effects in greater clearness and with greater importance as practical problems than do the temperate zones. Yet less research has been done on them. In India bioclimatology is almost virgin soil. Is there any immediate practical need for this inquiry? There is.

When in 1941 German troops went to Africa, some even of our more responsible Dailies pooh-poohed the experiments they underwent before their departure. They thought it very funny that the "palm-tree boys" had been through glass-houses to make them fit for life under the African sun. The real story behind it is that some German scientists knew a thing or two about hot climates, and the *Wehrmacht* used that knowledge.

For a man to be fit in a hot climate, he must be able to perspire efficiently. The efficiency of perspiration is enhanced by a sun-tan, an observation of

of physiology of which too little use has been made. Candidates for the Afrika Korps were given a course of artificial sunlight, and were then sent through climate chambers, the glass-houses of the newspapers. The tanned men arrived and continued fitter in Africa. Soldiers giving unsatisfactory tests in the climate chambers—for instance, those who were unable to sweat—were rejected from the drafts. They were the candidates for heatstroke and suntraumatism. The advantage of weeding them out in time and making use of them in a temperate climate is obvious.

Yet another example to illustrate how and where bioclimatology works. In a profuse outbreak of perspiration a man loses an appreciable amount of salts. Continued loss of minerals under prolonged stay in a hot climate makes for lassitude, liability to skin infections and other signs of lowered vitality. We know that the addition of an extra dose of common salt, to be taken in the form of cool drinks or taken plain, reduces casualty numbers considerably. This procedure is still capable of further improvement.

Take topees. Air Commodore Morton read a paper in March, 1944, to the Royal Society of Tropical Medicine and Hygiene on the "Heat Effects in British Service Personnel in Iraq." He considered a topee essential in Iraq to prevent serious heat effects. Some of the doctors present agreed with him, some did not. The efficiency of the topee as a protection against heat was found to be very low when measured. Yet many people cannot walk about in the tropics without a topee, for fear of incurring the penalty of a severe headache or even fever. In other words, a commander of troops asking his medical advisers what his men should be ordered to wear on their heads cannot hope for a definite answer.

It is here that the new science of bioclimatology may give us help. We must assume that some of these heat accidents are not alone due to actual high temperature, but also to rays other than heat. We do know that the composition of the radiation that reaches the surface of the earth varies from place to place on account of the contents and thickness of the atmosphere. A study of radiation in the tropics should be undertaken and the varying radiation climates compared with a chart of the heat accidents. We might then forecast where and when heat accidents are likely to occur. We might deduce which type of rays is particularly noxious. We can then perhaps say where a topee should be or need not be worn.

We have already in the wet-bulb measurements a guide to dangerous humidity and temperature degrees. This should be supplemented by an estimation of noxious rays. Ultraviolet rays are at present the main suspects, and they can be further incriminated by spectrographic studies and an estimation of the relative effective energy of these short-wave rays in the whole Spectrum.

I have seen it stated that the cause of a fatal heat accident was lack of acclimatisation. That is about as rational as to state that a man died of starvation on account of lack of food. Some have the impression that a new arrival is less immune from heat effects than old-timers, others maintain that it is not so. The fact is that we do not know what changes take place when an organism is exposed to new atmospheric surroundings.

I assume that at the discussion of Morton's paper a most competent audience was present. And yet when the question was asked: "What is understood by acclimatisation?", there was no answer. There was no answer, because no one knows it. Physiological methods as available now will allow us to study the changes brought about by the process of acclimatisation. Once

we have pinned down in definite data what acclimatisation is, we would then have the means to initiate it and direct it at will. We might be able to *condition large groups* of people for the tropics. There is, however, more to it than the mere time factor which makes newcomers liable to heat damage and old residents immune, because we know that Indian troops are not immune. They are probably affected in a smaller proportion, but the mortality among them is actually proportionately higher.

Indeed, the pressing question of optimum working hours in the tropics has not yet been solved. But the example of the sun hat shows the need for research most clearly, for even on that one much-examined point the meeting mentioned above could only agree to disagree. It seems that the case for research into these relations has been sufficiently stated.

Solar radiation is foremost in shaping climate. If we had absolutely pure air, then the decrease of the radiant energy caused by absorption and reflection during its journey through the atmosphere could be mathematically calculated. There is Raleigh's formula for it. Actually we receive far less than the quantity we could expect. That is due to air admixtures. The figure showing how much less radiation we get is called the opacity factor or dimming factor. It varies according to geographical location and season. It has, however, never been measured in India and other warm countries, yet its bioclimatological importance is immense.

Rickets was formerly thought not to occur in the tropics, as it is to some extent caused by a lack of sunshine. Of sunshine there is plenty in India, and yet I found in 20 per cent. of schoolboys in the Punjab traces of the disease. An unexpectedly high dimming factor seems to prevail, and impurities of the air block out the health-giving rays. In Kashmir and Baltistan and other Himalayan tracts there occurs osteomalacia, a softening of the bones of pregnant women. It is the adult equivalent of rickets, which is pre-eminently a disease of young children. Osteomalacia may to some extent be provoked by malnutrition, but I consider that that is not the complete answer. Detailed investigation of the radiation climate would explain the rest.

What use do leaves and trees make of the rays they receive? We do know which wave-lengths are picked out by clover leaves; we know that ultra-violet penetrates certain young leaves. But we do not know anything about this absorption of light in dense primary forests, in sugarcane fields, or in other tropical vegetation.

In studying the total balance of radiation, it is seen that a part of the solar radiation is absorbed by the atmosphere and by the surfaces irradiated, while a part is reflected. The figures of reflection, called albedo, vary according to the structure of the surface. Snow has a high albedo, water a low one. Fair skin reflects 35 per cent. of the total radiation, but only 1 per cent. of the ultra-violet rays. The proportions in darker-skinned races are not known, yet that knowledge may offer an explanation as to why, on the whole, highly-pigmented races tolerate hot climates better.

The atmosphere consists of various gases, in practically unchanging combination. Nitrogen and oxygen are 99.04 per cent. of the atmosphere, while argon, carbon dioxide, neon, helium and others form the remainder of the atmosphere. Ozone, a form of oxygen, is the main medium of ultra-violet absorption. The proportion of all these gases is practically constant up to 12½ miles. Vertical air currents keep the proportion constant, a disarrangement of which would be most dangerous for all life.

Carbon dioxide is said to vary slightly with the time of day. Near big towns and industries it increases. But there are further substances contained in the atmosphere. There is vapour. If it increases to more than saturation, condensation occurs, and on walls or on the ground water is condensed; for instance, dew. In the air droplets are formed around nuclei of condensation. They are very small and float in the air since they are too minute to be subject to gravity. Usually they are mineral particles; salt, over the sea, or products of combustion-processes over industrial areas, where their number may be very high. Many of them carry electrical charges and are then called ions. The number of such nuclei per c.c. is a measure of the purity of air. That gives this number its biological meaning. Too few data are available to piece together a picture of the "ion-climates" of the tropics.

The air also contains radium emanation. Higher concentrations are found in the neighbourhood of radio-active springs. This is of practical interest, because there are several notorious areas of endemic goitre in India, and there is some evidence that radio-activity of soil, water, air and soil air may have something to do with it. A study of it may explain the century-old puzzle of the cause of goitre, and may also lead to the discovery of radio-active springs. In Kashmir, Kulu, Multan District and elsewhere we find these goitre centres, and the—at present—most popular lack-of-iodine theory does not explain them at all.

The air is polluted by a great variety of materials—dust, soot, other industrial debris and organic substances such as pollen and bacteria. In England extensive studies of industrial air pollution have been made. The American stratosphere balloon "Explorer II" brought specimens of spores and bacteria from seven miles up where a temperature of -55° C. was registered. These floating organic parts of the dust are called air-plancton, and little enough is known about this plancton.

So far about the atmosphere. Next, to temperature. A. Austin Miller, in his book on "Climatology," points out that temperature recorded by the thermometer does not always agree with the sensations of heat recorded by the human body. The sensation of heat depends on other air conditions besides temperature, the chief of these being air movement and humidity. For the human body is cooled by a double process of radiation and evaporation from the sweat glands. Any condition which produces activity of either gives an impression of cold. Thus a temperature of 60° below zero in Siberia can be endured where, under the influence of the winter anti-cyclone, the air is practically still. Blizzards with 20° below zero are insufferable. Ninety degrees on the equator are as uncomfortable as 110° in the Sind Desert.

The combination of heat and high humidity is one which the human body is least able to endure, and is a very important controller of human activity. In the wet-bulb thermometer we get a record of the value of air temperature minus evaporation from a moist surface. Continuous wet-bulb readings of 70° and more limit white colonisation, for sustained manual labour becomes impossible, as was shown by Dr. G. Taylor in Northern Australia in 1916. Besides the wet-bulb thermometer, which is one of the instruments used for these observations, Professor Hill's kata-thermometer measures for us the time required for a test fluid to cool from body heat to one degree less. These kata-values are specially suitable for micro-climatological investigations, the suitability of fabrics for clothing, house structures and other subjects.

In Southern Italy a wind called Sirocco prevails. It is a hot wind, presumably blowing from the interior of the Sahara across the Mediterranean as a continuation of the Simoom. It often carries a troublesome dust with it, and always brings listlessness and irritability. This effect is so outspoken that it has influenced law practice. A *crime passionelle* is, I am told, conceded the benefit of mitigating circumstances if committed on a Sirocco day, but I have been unable to find a really up-to-date confirmation of this.

Then there is the Foehn, a wind originally observed about the Alps. It was formerly thought to be a continuation of the Sirocco, but it may arise anywhere about suitable mountain ranges. The rise of air on one side of the range involves a change of its pressure, temperature and vapour content. As it drops on the other side, heat and rain are set free and in spring a sudden thaw will be brought about. People report that on the approach of the Foehn they are temperamentally unbalanced. Rheumatic patients are said to experience worsening of their pain. Tuberculosis sufferers are kept specially quiet because hæmorrhage is more feared.

Often a Foehn heralds the advent of Spring and helps powerfully in unthawing streams and meadows. At this season it adds to the so-called physiological spring crisis. The number of poems written does indeed rise, but so do the figures of suicides, sexual crimes and admissions to mental homes. This is definitely observed in Europe in May and June; in Australia characteristically in November.

If all this has become the subject of physiological research under the gentler climatic movements of the temperate zone, how much more could be observed at the violent change of the breaking of the monsoon. There are scores of questions connected with the breaking of the rains which has so often been the subject of poems and novels, but hardly ever of scientific approach.

Meteorology has been in recent decades revolutionised by the conception of air masses. An air mass is a delimited amount of air that is carried by wind from one place to another at such a speed that it retains the characteristics of the climate of its original site. An air mass that has been over the centre of the North Atlantic may suddenly be carried over England, and then be followed by a mass of tropical air. The sequence and behaviour of the air masses have been analysed in great detail.

Now, if two winds, one carrying cold, the other carrying warm air, meet, they crowd each other. In the area of their meeting there will be first a layer of cold air and on top of it warm air. They influence each other in typical ways, with cloud formation, rain and change of weather. These border areas of air masses are called weather fronts. It has been found in reasonably reliable proportion that certain non-infective diseases occur in groups, glaucoma, embolism, croup and others. These disease groups are in a definite time-relation to the passage of weather fronts. In South-East Asia I should think these fronts must be very well defined, with the prevailing long periods of static atmospheric conditions. It would be an ideal site for study.

Ordinary meteorological data are collected according to an international agreement at a height of six feet above the ground. That is done to avoid disturbances nearer to the ground. But it has been found that the region near the surface—that is, the first six feet or so of the atmosphere—deserves special attention. The temperature immediately above the ground will be higher or lower than in one or two feet height, according to the amount of heat which the soil takes or gives off during day or night.

These conditions again will be varied according to the structure of the surface. In a flowerbed we find a different scale of temperature according to time and season. There may be as much as three-centigrade difference within six feet. A cornfield has temperature scales different from a flowerbed. This is important for growth of leaves and fruit, dew formation, frost damage and protection against drought. These are examples of microclimatic effects. Cold air sinking down behind a garden wall on a slope can be dammed up there and will cause frost damage within a yard or so only of the wall. Vintners have noted that effect.

Orchards and woods influence the dust content of the air. The dangerous increase in the air pollution over industrial areas can be reduced by arranging suitably-planned green stretches within the town area.

So much for the rapid survey of those single meteorological elements which bear on biological processes. Next the biological side has to be discussed. Man and many animals keep in health a constant temperature. In fact, so constant is it that the fever thermometer is the elementary gauge of well-being or sickness. Man's naked skin has often been thought to be his greatest weakness. In reality, it has forced him to develop the best heat-regulating apparatus in the animal kingdom. He is adaptable to all climates and has thus become the ruler of the earth.

Blood circulates through the skin. Heat is lost if much blood circulates through the skin. When a cold bath is taken the skin blood vessels contract and are empty. Then the skin, the fatty layer and connective tissues now empty of warm blood, will form an efficient isolating cover, keeping the body temperature normal. If, on the other hand, under tropical conditions the outside temperature rises above body temperature, then the widest opening of the skin blood vessels takes place.

Yet that is not sufficient. Here perspiration sets in. This thermoregulative power is not equally good in all persons, but it can be improved by training, and so it is necessary to evolve a simple and effective technique for such training. Horsemen know dry sweaters—animals which fail to sweat when galloped—and they know that these are quite likely to die of heatstroke when exercised in a hot climate. In men, too, a rare condition is known where the sweat glands do not function. Such people are obviously unfit for the tropics.

In a football match a player loses eight pints of water. With it he loses essential minerals. Attempts have been made to replace the sodium chloride, which is the most important of the depleted minerals, by giving as a ration to bodies of troops an extra dose of common salt. But sodium chloride is finely counter-balanced in the body-fluids by other minerals, potassium, calcium and ammonium chloride. And we must take care not to upset this balance by over-impressing the use of sodium. In recognition of that caution Morton recommends in the above-mentioned paper a drink containing potassium as well. It seems obvious that the ideal would be to give a drink containing all the minerals in their physiological proportions which could be prepared in any dispensary. It is noteworthy that some primitive tribes use as salt, plant ashes which contain all minerals in ideally-balanced proportions.

Africans perspire with clear, round beads which run down on the fat, smooth skin. European skin looks as if soaked. The reason for the more efficient African perspiration is the pigment itself. It seems that certain rays stimulate the pigment-carrying cells, and efficient perspiration results. We can here give a partial answer to the question, "What is acclimatisation!" It is

the ability to perspire efficiently. The better the body is tanned, the more efficient the perspiration. To keep up that level of acclimatisation, a man must have his mineral reserves replenished by a balanced mixture of salt. There are many more problems in "pigment" and "tan" which can but be mentioned here. Is there a difference other than of quantity between the inherited pigment and an acquired sun-tan? Why are children who are well sunburnt more sensitive to tuberculosis scratch test, than palefaced ones? Here is a great field for future research.

It is difficult to exercise body or mind after a heavy meal. The intestines need a full blood supply for the process of digestion. That leaves little of the blood reserve for head or limbs. "*Plenus venter non studet libenter.*" The Chinese enforce in students a full hour of absolute mental and physical rest after the midday meal. The actual food taken stimulates by way of nervous connections other regions of the body to send blood reserves to the stomach and gut. Hence the value of appetizing foods: they help digestion.

An experiment has been undertaken to illustrate this. One day students had their dinner in a room of temperate climate. The next day they had exactly the same meal in a room with tropical temperature and humidity. Three hours later the gastric contents were examined, and it was found that the digestion of the meal taken in the tropical climate was defective. The experiments were then repeated with an addition of onions and thereafter with curry powder and spices.

Onions brought about some improvement, curry stimulated nearly normal digestion. These seasoning agents induce a better blood supply to the intestinal tract. In hot climates more blood is in the periphery for thermo-regulative purposes and the extra stimulus of spices corrects that. Of course, the use of hot spices can be and is being overdone. This example is reported here to show how detailed is the information that physiology would be able to furnish if some broadly based research were undertaken.

Each climate affects our sensation of comfort. Some days are too hot, some too cold. We suffer on a sultry day. We feel oppressed before a thunderstorm, refreshed by a burst of rain. It is possible to determine the constants of the atmosphere within which the body is comfortable. That is done by bringing experimenters into various climatic chambers where humidity, temperature and wind can be modified. We know now in great detail the physical qualities of the human comfort zone. Fiftyfive per cent. humidity, for example, is the most suitable for intellectual work. These data help the air-conditioning engineer to design his plants correctly. Yet there is scope for further investigations, because it is likely that with further acclimatisation the limits of an individual's comfort zone change.

The most conspicuous ill-effects of hot climates are the heat accidents. Syncope is the mildest and occurs in closed rooms like stokeholds, but also even in temperate zones in overcrowded theatres. In heat exhaustion the patient is usually dizzy, has a cold, clammy skin, a low blood pressure and often cramps. Rest in a moderately cool room and salt drinks bring rapid recovery.

Heat fever is much more dangerous. Convulsions and/or coma occur. The skin is hot and dry, and that fact is most significant. There is high fever, to as much as 110°, and yet no sweat appears. The conditions conducive to heat fever are hot, moist and still air, warm and tight clothing, disease, alcohol, stout or obese build.

Sun traumatism, the fourth heat accident, is connected with sunburn, light stroke and glare headache. Sun traumatism has a predilection for certain countries, among them India. South American areas of similar latitude do not know the need of use of the topee. A big straw hat is considered sufficient. Our understanding of this type of heat accident is indifferent. It must be a matter of rays and not of heat, because it occurs in people skiing over snow-fields who succumb to severe burns and systematic reactions like fever.

A final word about artificial climate, which also falls within the wide scope of bioclimatology. The old clay bungalow in India, with its thick walls, high-ceilinged rooms and deep verandahs has a deserved reputation for coolness. A low ceiling, brick walls, concrete roof and floor protect but poorly against heat. Their attraction is that they are cheap, easy to clean of vermin, and afford more light in the winter months.

Architects in the tropics should develop an intermediate style. There are new heat-insulating building materials available, for instance, asbestos, aluminium sheets with plywood, and molasses worked into bricks and inserted into brick walls as insulation.

Wherever possible a house should be placed so as to receive an optimum of radiation. In high latitudes the architect endeavours to place living rooms, nursery and schoolroom facing South. In the tropics protection from radiation is aimed at. It is advised to put the small wall of the house and the deepest verandah facing not exactly south but south-east. This, because at the time of the summer solstice the south wall receives the smallest caloric energy, the highest at the time of the winter solstice. At the time when in summer the sun reaches the highest level in its course, the rays hit the south wall only in a very acute angle. The nearer to the equator the more obvious becomes this phenomenon.

Radiation studies on houses become more important when we begin to think in terms of rational town planning. That, too, is a new science for India. Only one consideration of climate may be proposed here which should be taken into account when planning a new settlement. The houses should protect each other against the high radiation. The absorption of radiation by houses along a certain road depends upon the width of road and courtyard and the height of surrounding houses. A very wide road, without trees, will be very hot, and so will the houses on it. Roads then should be rather narrower, avoiding the extreme of the bazaar. No road should be narrower than twice the height of the houses.

Wider roads should have central strip of grass and two or more rows of trees. This allows for accommodation of tramlines and two one-way motor roads. Streets should strike mainly NE-SW, and these should be more numerous than the interconnecting streets. The latter should run at right angles to the former. Special climatic conditions, like prevailing winds, cool sea breezes and the relative duration of hot and cold seasons may demand further modification of these roughly outlined principles.

Acclimatisation is not only a medical and a military problem. It also concerns the ethnologist and anthropologist. Agriculture, botany, animal husbandry and geology, indeed all branches of science, will have to co-operate in solving the problem of acclimatisation. Thus will be discovered new fields for the improvement of present conditions. Those natural forces which are still hostile to mankind can be harnessed and directed towards making further room over the whole surface of the earth for its teeming millions.

AN OFFICER OF THE RED ARMY

BY MAJOR G. H. NASH

1934: "*The Red Army of Workers and Peasants are the Vanguard of World Revolution.*"

1944: "*The Red Army are the lawful inheritors of true Russian military glory and valour.*"

DEAR MR. EDITOR,

May I introduce to your readers Junior Lieutenant NIKOLAI VASILYEVICH GLINKA, of the 312th Novgorod Infantry Regiment? He is both real and imaginary—real because he represents Russian officers of to-day collectively, and imaginary because, as an individual, he probably does not exist. Yet, in so far as his experiences epitomize much that it is possible to learn about the life of a Red Army Officer of to-day, Glinka is a real character.

As for his Regiment, the 312th Novgorod Infantry is an actual unit of the Red Army and the incidents described are taken, not from the imagination, but from regimental history. Indeed nothing that you will read about Glinka's environment and experiences is fictitious, for in this long letter of introduction, Mr. Editor, he is the medium through which an attempt has been made to present to your readers something of the military background, customs, tradition and experiences of thousands of our contemporaries in the Red Army of to-day.

Finally, in this introduction to an introduction, I must crave pardon firstly for having telescoped my dates—for in actual fact most of my material belongs to 1944 and none of it goes back further than 1943—and secondly for lack of originality, for I am indebted to the Red Army newspaper *Red Star* for the whole of the military background to my story.

Let me describe our friend Glinka to you: Aged about 22, he is five-foot-seven in height and fairly thick-set. His plain features can hardly be described as intellectual, yet one sees in his expression determination, good nature and commonsense, and before you have been talking to him for long you will discover that he has a sense of humour akin to our own.

He has a taste for music which we would regard as highbrow, for after all, not many of us possess a musical constitution strong enough to enjoy grand opera, but his taste for music, Russian classical literature and that essentially Russian institution, the ballet, is inherent in his race, and in himself it has been cultivated from an early age. His literary education began in his eighth school year with Russia's old heroic sagas, and a year later he had devoted over 70 hours of study to great authors like Tolstoy and Gogol. Dicken's works he could not help meeting, for in the Soviet Union Dickens has been a "best seller."

And now, before I go further Mr. Editor, I must warn you that our friend is an enthusiastic member of the Communist Party. Having told you that, you may already be conjuring up a picture of young Glinka, with his collar unbuttoned and a shock of hair falling over his forehead, fraternizing with his soldiers, or even tub-thumping of a Sunday afternoon in the Park of Rest and Culture which is just around the corner from his barracks. And so I must waste no time in telling you exactly what this means to-day.

Glinka has been admitted to the Party because he is an unselfish type of citizen who puts his country first; we would call him "public-spirited." He is intensely patriotic and an active supporter of the Government. He has distinguished himself in battle, and that alone would have been enough to admit him to full membership of the Party after three months' probationary membership. In fact, gallantry rather than godlessness, and patriotism rather than perfection in Marxist-Leninist theory, are the keys to membership to-day.

And what is the significance of this membership to our friend Glinka? The Party and the Government being virtually one and the same thing, he has, apart from, or rather in addition to his military status, now become what can conveniently be described as a non-official member of the Government. As a Party member in the Army he is expected to be "A true example of self-sacrificing service to the Motherland and to the people." "Fearlessness in battle," says *Red Star*, "is the first distinguishing quality demanded of the Communist warrior, but he must not rest content with the fact that he fulfils his duties conscientiously. . . ." He must be in close touch with the masses and educate them both as fighters and as citizens. The fact that he is a Party member must influence all his actions—he must be a man of high ideals and try to lead a life which will be an example for others to follow.

So much for Glinka, the young Communist officer—and when he retires as a peppery old colonel he will do much the same as his public-spirited military contemporary in England, but whilst the latter is presiding over a branch of the British Legion, Colonel Glinka will probably be leading a local political (=government) organization in his home town. As a Party member he will be watching and reporting on the peoples' reactions to government measures and he will try to draw into his Party organization as many people as possible, for the more people identified with the Party and party aims—and one can equally well say "with the Government and government aims"—the better.

But now, Mr. Editor, I have raced ahead, sent Nikolai Vasilyevitch to war and put him into retirement before I have told you anything about his life as a cadet or introduced you to his regiment, so I hope your readers will bear with me if I go back and begin again.

Before entering his Russian "Sandhurst" Glinka spent some years at a Suvorov Cadet College, where he received what may conveniently be described as a public-school education with a strong military bias. There are at present nine of these cadet colleges in the Soviet Union, and each one takes five hundred boys. All these boys are future officers, and the education they receive is based on that of the old Imperial Russian Cadet Corps. Lieut.-General Morozov, Chief of the Directorate of Red Army instructional establishments, talking about the syllabus says:

"The whole system of education is directed towards the inculcation of soldierly instincts in the boys whilst they are still young. At the same time careful attention is paid to their cultural and intellectual development. An officer who has been through a Suvorov Cadet College will be a model of patriotism, culture and military knowledge." The learning of a foreign language is compulsory.

In addition to the normal instructional staff each class of boys has an "officer-tutor" who accompanies them throughout their progress through the College. Officers who were educated in the old Imperial Cadet Corps have played an important part in organizing the syllabus. And finally—to quote General Morozov once again: "The Soviet officer considers it an honour that his son

should carry on his father's military tradition by becoming an officer in the heroic Red Army."

I can already hear you saying "And who else can become an officer?" And here is the answer:

N.C.Os. or men who have in battle displayed the ability to command platoons or companies.

Graduates of a short officer's training course.

N.C.Os. or men who pass the final examination at a military college for a special branch of the service.

And now to return to Glinka; on leaving the Suvorov Cadet College at Maikop he went to the Red Army Military College, "Supreme Soviet of the R.S.F.S.R." where a lot of his time was occupied in much the same way as that of a pre-war cadet at Sandhurst. But there are important differences.

The first demand made upon every officer-instructor at Glinka's Military College was that he should develop in his students the highest sense of patriotism and pride in the "profession of an officer," and whilst we at Sandhurst were neglecting our great commanders and Empire builders of the past, Glinka, as part of his military education, was studying the lives of Peter the Great, who made Russia a world power, Suvorov, who lead victorious Russian Armies as far afield as Switzerland, and Kutuzov, the old "Fox of the North," who defeated Napoleon in 1812.

Following Suvorov's maxim, "Hard in training, easy on the battlefield," Glinka spent many sleepless nights putting into practice the theory learned in the classroom. Five days at a stretch his platoon was out—protection on the march, outposts, patrols, attack, defence, night operations—first in the summer, then in the bleak wet autumn and finally over winter snows. "Thus," says *Red Star*, "the future officer is accustomed to being in a state of readiness for battle and he becomes physically tough."

But that is not all, for the Red Army has set out to make Glinka the embodiment of all that was good in the Russian officer of yesterday. Glinka is to be the guardian of tradition, and not only is his traditional background built up by discussions on the activities of heroes of Russian history, but he is also encouraged to read books like Tolstoy's "War and Peace" and the story of the Sevastopol heroes of 1855. In short, "Every cadet must seek to assimilate the military qualities displayed by the best officers of our Motherland and he must be educated in the best traditions of past generations."

To patriotism and tradition is added what we call "man management." Following the Suvorov tradition, Glinka is to combine personal interest and concern for the welfare of his troops, with the strictest enforcement of discipline. "Whilst friendly relations between officers and men are traditional of the best type of Russian officer, familiarity has always been stamped out without mercy." Glinka is to be a strict but kindly father to his men—their leader and their teacher.

And now, if this letter is to be finished at all, we must leave the Red Army Military College "Supreme Soviet of the R.S.F.S.R.," leave the story of Glinka's lapses in training and how they were dealt with, of the thrill of donning the epaulettes of a Junior Lieutenant for the first time, and follow him to the 312th Novgorod Regiment.

First joining was an unforgettable experience. The regiment was out of the line at the time and quartered in barracks at . . . , a district centre near the Western frontier. The railway journey had taken three days—three days in the cheerful company of three other young officers, one of whom—rather quieter than the rest—had already seen much service; above the olive-and-red medal ribbon, "Defence of Stalingrad," he wore the five-pointed gold star of a Hero of the Soviet Union. He was so tall that Glinka wondered vaguely how he had ever come through the defence of Stalingrad without being killed; he had not, however, escaped entirely unscathed for his left arm was stiff and he moved it with obvious effort.

Of these four companions in travel three were Europeans and one was from Turkestan, and that, Mr. Editor, represents very fairly the proportion of Russians to other races in the Soviet Union. Here I have taken the word "Russian" to include Great Russians, White Russians (Byelorussian) and Ukrainians.

The railway journey was over. As the train drew slowly into the station Glinka shook hands with each of the three subalterns and then, going out into the corridor and down to the end of the coach, stood waiting at the open door. Someone had seen him and followed closely by an orderly, was moving through the crowd towards him. There was something strangely familiar about this man, who moved quickly yet without any appearance of haste. His every movement was quiet, firm and deliberate.

This was Bondarenko, who had been at the same Military College as Glinka and had left there a term earlier. Bondarenko, the imperturbable Ukrainian, but a few months ago a senior cadet and now already a seasoned campaigner wearing the "Defence of Moscow" medal ribbon. The orderly, a big man with tanned face and high cheekbones, came forward eager to be of service to the newly-joined "Comrade Lieutenant." He saluted smartly and then, assisted by a tough woman porter, collected Glinka's modest baggage and took it off to the waiting cart.

Soon after their arrival Glinka was taken to meet his Battalion Commander. The war in general and the winter offensive in particular had taken heavy toll of the more senior regimental officers. The regiment (three battalions) was now commanded by a Major, whilst the commander of the 2nd Battalion, to which Nikolai Vasilyevich had been posted, was the 30-year-old Captain Baranov, a short, plump little man whose square head, pale-blue eyes and very fair hair suggested Baltic-Russian origin. The war had made him old for his years. His method of command was characteristic of a good Russian officer, for he combined utter ruthlessness and the strictest enforcement of discipline with a friendly concern for his "children," the troops.

Like Glinka, Baranov was a member of the Party, and his success as tactician had earned for the "Comrade Captain" the unbounded confidence of his troops. He was feared yet he was liked, and as a Party member he exercised considerable influence. Glinka was presented to him in office in the middle of a very busy morning. A large draft of reinforcements had arrived and were being posted to companies. The Battalion Commander shook hands with him, enquired whether he had been fixed up with accommodation and asked him a few questions regarding the final stages of his training at the Military College. He then dismissed him and Bondarenko took him to the Regimental Mess, or rather—to use the Red Army term for it—to the Officers' Club.

Besides the normal ante-room and dining room, the mess contained a ball room, a lecture hall, a library, the regimental museum, an officers' shop and a barber's shop. In addition to its normal functions the Mess serves as a school of culture; here everything is done to increase the knowledge and broaden the outlook of officers. Lectures are frequent, and they cover a vast number of subjects of general as well as military interest. "As the leaders of our troops," says *Red Star*, "our officers must possess an intimate knowledge of the great history of our motherland." Nor are outward signs of culture neglected—everyone rises when the senior officer enters the mess, and in general, differences in rank between officers have rather more influence upon Red Army mess life than upon our own. Mess rules cater for everything, as the following one will show:

"At lectures and concerts, at breakfast, dinner and supper, no officer will appear unshaven, or without a white collar under his patrol jacket, or wearing dirty boots." Nor is anything left to chance, for a mess orderly officer is appointed to see that such rules are strictly observed.

"The Club," says *Red Star*, "has become a kind of school of etiquette for officers. Here is an environment in which anyone who is careless about his personal appearance or self-discipline will at once feel out of place. Whatever your rank, here you can sit down with a divisional commander or even an army commander, and converse with him on any topic, but not even your personal friends will forgive tactlessness in the relations of a junior to a senior. . . . There is no question of disciplinary action in the normal sense of the word, but you may be asked to leave the mess, or even to stay away from it for a certain period. Here the honour of your uniform is most strictly observed. . . ."

This, then, was the atmosphere in which Glinka found himself on first joining, and this was to be his regimental home for many years to come.

Around the walls of the Novgorods Mess hung photographs of the heroes of the Regiment; Nikolai Sosnovski, a young Siberian Communist who threw himself upon a German machine-gun embrasure. Red-Army man Michail Medjuyev who, surrounded by the enemy, killed 20 or 30 of them and then, with his last grenade, blew himself up. Lieutenant Yakimov, who died the death of a hero firing his infantry gun until he was killed. Captain Pipchenko, who although wounded, continued to lead an attack until he could no longer walk or stand. Senior Lieutenant Druzhinin, who with a small party held out against a tank attack, and although badly wounded refused to leave the field until the situation had been restored. . . .

The day after Glinka's arrival there was a ceremonial parade. The Regiment was drawn up on three sides of a square; on the fourth side stood the Regimental Commander and his staff. The regimental standard—which the Regiment carried on service with it, and which now looked as old as the Regiment itself—was also carried on parade. Swords and bayonets gleaned in the rays of the setting sun. The Regimental Commander having decorated various officers and men who had distinguished themselves in the recent fighting, now made a short speech. He congratulated those who had won decorations, said a few inspiring words about the honour and glory of the Regiment, and then for the benefit of the many newly arrived reinforcements he talked about regimental tradition and the significance of the standard. He then continued:

"We are Novgorodtsi (those of the Novgorods), men of a Regiment which distinguished itself in years long past and in the Civil War. We have not lowered our standard in these fateful days—neither shall we. Remember, we are each

one of us part of a regimental family—a mighty family, for our Regiment has existed exactly one hundred and forty years. In 1806 we fought at Pultusk and Friedland, in 1812 at Borodin. . . .”—and Glinka remembered the last speech of the Commandant of the Military College, “You are the inheritors of Russian military glory. Remember the traditions of your fathers and forefathers, for with this tradition you will fortify the martial spirit and strengthen military discipline.”

Opposite Glinka stood the 63-year-old band master—the grand old man of the Regiment. Side by side with his Soviet decorations hung the old Imperial Russian Cross of St. George.

* * * * *

And here Mr. Editor, I must end my letter of introduction. I am deeply conscious of its many imperfections and all I have the temerity to hope is that in introducing Glinka I have—however sketchily—given your readers a glimpse of the Red Army from a new angle.

I hope you are still awake.

Yours sincerely,
G. H. NASH.

IRRAWADDY FLOTILLA

By R. DRY

THUS it was known. Actually the Irrawaddy Flotilla Company Limited; Incorporated in Scotland. But it began life as the Irrawaddy Flotilla when a few ships from Bengal were allocated to the armed forces operating in Burma in 1852, and when that war ended with the annexation of Lower Burma and with Thayetmyo on the Irrawaddy as the frontier town, these vessels remained as lines of communication under Services control.

However, with the passing years Government decided that in the interests of general commercial development it would be preferable for the expansion of river steamer services to be undertaken by private enterprise; and consequently Todd Finlay & Co., of Rangoon, purchased the ships for this purpose, but after a few years sold the concern to the Irrawaddy Flotilla and Burmese Steam Navigation Co., Ltd.

In 1872 the new owners, having reached the conclusion that conditions were favourable to further expansion, invited public subscription of fresh capital which, being forthcoming, enabled them to build and operate craft of improved design and efficiency. The name of the Company was shortened to its present form.

From thence onward until 1942 the Company achieved a record of steady development, expansion and popularity. The stimulation of rice cultivation in the Delta areas under the encouragement of a steady export demand resulted in the growth of numerous towns and villages. In this region, where waterways exist in the place of roads, the happy and opportune provision by the Company of a fleet of "runabout" steam-driven twin-screw double-decked craft of a handy size contributed in no small measure to the rapid expansion of this area. The virtue of these craft lay in their ability to move rice and other marketable goods in the holds and on the main deck, while passengers could travel in comfort on the upper deck.

Each part of the country required specialised application in respect to the type of craft employed, as what would satisfy the comparatively deep waters of the Delta or parts of the Moulmein area would not do for the main course of the Irrawaddy or its big tributary, the Chindwin. Each of these areas presented a problem for distinctive solution, and in each case an equally distinctive type of craft was evolved.

The pride of the fleet were the fine-looking main-line triple-expansion-engined paddle-wheelers of 325 feet in length, double-decked throughout, which plied between Rangoon and Mandalay and towed two 225-foot single-decked dumb barges or "flats," the three making a single unit of assembly. The "lift" of this assembly was roughly 1,600 tons of cargo at six-foot draft overall. As in the case of the Delta fleet, passengers used the fine spacious upper deck of the steamer, while the lower decks and holds of steamer and flats carried the cargo.

The pride with which the officering of these ships was regarded is exemplified by the immaculate tropical uniform of the Merchant Marine worn by all European deck and engine-room officers and the smart turnout of the Chittagonian ratings in regulation uniform at all main stations. All this, with the houseflag fluttering at the foremast and the "Red Duster" astern, formed a

spectacle good to look at and which strongly appealed to the Burmese sense of movement and colour.

The Burmese are clever as tinsmiths, and with an old kerosene-oil tin, a little solder and the necessary paints, they would fashion clever little replicas of the fleet, complete with the ship's name, and small children would tow these along the dusty paths of riverine villages with prideful satisfaction.

The Chindwin fleet comprised compound engine-driven sternwheel steamers so light that they could, it was said, float on a dewy field. Certainly they could carry quite a lot of cargo and passengers on four-foot draft when this depth happened to be available, which was only the case for about six months in every year. In the lowest of the low-water season they were fortunate if they got as much as three feet. They sometimes had to be content with less. Of course, these shallow readings were not general, but they dictated the maximum draft at which the vessels could ply. Incidentally, draft restrictions on the main river, *i.e.*, the Irrawaddy, often required the fleet to work on four to four-and-a-half feet, while the reaches between Mandalay and Bhamo at the same time of year were often less.

Apart from the big fellows there were smaller editions of similar design ranging down to 175 feet, and in addition to the orthodox Delta design there ran on those deeper waters purely single-decked cargo carriers, with steam or diesel engines aft and big holds forward.

And the men who manned the fleet. Reference has already been made to the Europeans on the big ships. These men had served their earlier years at sea and were required to be in possession of deepsea "tickets." To these men and the admirable shore staffs under the marine and engineering superintendents was due the smart appearance of the whole fleet; for although it was customary in the family circle to refer to the make-up of these ladies as "good old red-lead and coal-tar," the general effect of the black hulls with the red band along the wooden belting at deck-level, black funnels relieved by a red band at a carefully balanced interval from the top and white stanchions and upper works, secured a strikingly smart and distinctive uniform which was known and affectionately regarded by Burmese wherever their rivers ran.

The lower certificated ranks and the ordinary ratings were Chittagonian—near neighbours of the Burmese. These people are traditionally pre-eminent at this particular work, indeed so efficient that replacement by the Burmese, if it is to be by merit and not by policy, will require a high standard of attainment. The older and more responsible Chittagonians were not content to attain only the lower certificates, and at the time of the evacuation there was an increasing number of these men who had passed the First-Class Master's examination, entitling them (as indeed they did) to command the biggest ships in the fleet.

There were in all 268 powered craft in the fleet, supplemented by 376 dumb craft—flats, barges, houseboats and hulks.

There was, running right through the service, a real pride in the ships and in their smart appearance. They were not merely money-making media as nondescript as lorries or railway wagons; they were all definitely individual and bore their distinctive names proudly in brightly-polished brass letters on their bulwarks forward, so that when the time came in 1942. . . but that comes later.

So much for the set-up which took the ships upon their lawful occasions. The direction, storing, fuelling and the multifarious plannings which kept them in good heart and condition were centred in the Manager in Rangoon and his

team of assistants, supported and advised by technical experts, with some sixty agencies disposed throughout riverine Burma. The Manager in turn looked to Glasgow where the Board of Directors sat.

To keep the fleet on the narrow way which avoids sandbanks and snags, a special buoying organisation with its own buoying craft and paraphernalia was maintained. Very British was this—the organisation was supplied and financed entirely at the Company's expense, but anyone or anything could (and did) use the buoyed channels, and frequently made a mess of them too.

To service the ships the Company maintained Dockyards at Dalla, which is across the river from Rangoon; at Ahlon in West Rangoon; at Moulmein; and at Mandalay. It also owned a dockyard site on the Pazundaung Creek to the East of Rangoon.

In the course of its life the Company's fleet has been at Government's disposal for service in three wars. In 1885-6 it transported General Prendergast's expedition to Mandalay, and its officers and crews took their share of enemy fire on the way. In 1914-18 it supplied many units and personnel for Mesopotamia. Some of these vessels returned to Burma after that affair, and were still in commission and saw war service again from 1939-42. And that brings us to the account of those fateful years.

To begin with, the intensification of aid to China resulted in a gradually increasing ratio of load to total carrying potential in upstream shipment, while the down stream ratio also improved with the call for export of food produce—a call which appears always and inevitably to follow a condition of war. The ever-increasing volume of Lend-Lease to China by the U.S.A. was the chief cause of the heavy call upon upward transport all the way to Bhamo, where a loop road of rugged construction ran through sparsely populated and difficult country to Namkham (with a spur off to the China airfield at Loiwing) and thence to the Lashio—China road at Mile 105. Reciprocal export from China was also developing, mainly in downward shipment of tung oil and tin.

And so with the ratio of load to potential moving towards the satiety of the fleet, the cards of destiny for 1939, 1940 and nearly all of 1941 were shuffled, dealt and played. But when the Japanese hand was at length thrown down and disclosed more aces than made sense, Burma could not reach for its gun quick enough and Japan had her covered.

And in that pause between the levelling of the Japanese gun and the dissolution of the last wisp of smoke from its muzzle, this is what happened to the Irrawaddy Flotilla:

There was some outright requisitioning of craft for specific national duties—for example, one of the biggest ships and its two flats were converted into a hospital ship, its own personnel remaining in charge. Two diesel-engined barges were adapted for and sent to the Sittang River to supplement the bridge throughout there. The whole of the Moulmein fleet of 18 powered and 27 dumb craft were taken over to serve the 17th Division defending Tenasserim; here also the Company's personnel remaining in charge.

A system of shipment priorities was enforced and regulated by the Burma Government, so that initiative in respect to cargoes passed out of the hands of the Company, although, of course, the fleet remained entirely under its operation. It no longer remained a matter of primary importance that transportation rules and regulations should be maintained; the chief concern was evacuation from

Rangoon of such material as it was considered desirable for bombing and strategic reasons to remove up-country, and of course masses of civilians who had no occasion to stay in the danger areas besieged the ships for a passage to safety. But before these matters, the moving up-country of Lease-Lend for China and military dispositions took precedence over everything else.

And those refugees! How often had we all regarded with the deepest compassion those pitiable pictures of the humble, law-abiding, inoffensive Chinese, Poles, Belgians, Dutch and French, rooted out from their homes and streaming blindly away from the terror of blast and flame and violence! Now, incredibly, we were actual spectators of this same situation. The big ship lying at its pontoon, the smoke slowly wreathing from its funnel, awaiting the command to draw away. It lies very, very deep in the water—unusually deep. Its holds and those of its flats are choked with cargo; the main decks also. But on the cargo on those main decks, and on the great wide upper deck, seethes a mass of humanity sitting on, carrying and surrounded by bundles, bundles, bundles.

And over all this a stunned sense, a sense of unreality, a sense, too, of dread—the dread of death, of horrible, disfiguring, obscene mutilation from the blind fury of the bombs. Very still is the silence all about, over all the city. At each unwonted hum—it might be the revving up of a distant lorry engine—there is a rustle, a stir, a tautening of the nerves and muscles. . . . “Is it they?” . . . Eyes are more eloquent than speech; speech before such testimony is superfluous.

Happy were those who had the means to occupy their minds to the full; such were they who manned these ships and they who operated them. Day by day the demand for space grew, day by day the Port Commissioners' roadways which served the pontoon jetties became more and more encumbered with evacuation goods, and things of far greater importance, all giving way, however, to military stores and China supplies.

The Flotilla's first casualties occurred on December 23, 1941, when a Captain and a Chief Engineer died from the bombing of the foreshore on that morning, and the first scars of war spattered the ships.

On January 8, 1942, a vessel serving the 17th Division at Kyondo on the Gyine river in Tenasserim was bombed and sunk, and some of its crew lost their lives, including the Burmese clerk. It must be admitted that there was a little unsteadiness after that. Some men deserted, but others from Rangoon volunteered and went down to take their places, and most of the Moulmein fleet thereafter remained on duty to the end.

It has been inferred that the employment of civilian crews for military purposes was unfortunate. But what was the alternative? The operating of ships, whether they serve inland waters or deep sea, is a craft. It cannot be picked up by taking a correspondence course or by the mere act of putting men into khaki. With the type of mentality which informs the personnel of these vessels, both in Burma and Bengal, the mastery of this craft takes from early youth to mature manhood. Government had never trained cadres militarily for this particular kind of work; they had therefore no alternative but to utilise the available conditions.

Moulmein went up in fire and explosion in the early morning of January 31. The little ships brought off all they could, and if they failed to go back for those who were left they cannot be blamed. The Chittagonian is a man of peace; the crews had served with fortitude through bombing and sniping right up to the time of arrival in Martaban. The journey a vessel required to take

from Martaban to Moulmein was dictated by sandbanks. Leaving Martaban the course was South-East, then a 150-degree turn to run up between the sandbank and the shoreface of Moulmein—and the same back again. The Japanese were by now at the foreshore in many places. The ships would need to run the gauntlet for a mile or more at point-blank range. What chance would the ships have had?

At Martaban the military decision was made to destroy the fleet. Captain John Reid, the Marine Superintendent of the Company, had come down from Rangoon two days before to consult with Army H. Q. regarding the preparation of the little ships for the voyage round to Rangoon in the event of evacuation becoming necessary. He now obtained permission to sail round as many as he could get away. He got together crews for five ships, while one other, *WEENO*, was already in battledress, having been requisitioned in Rangoon previously by the Burma Navy. She had been down to Mergui and had retreated from there to Moulmein. Now she joined Captain John Reid's little flotilla, making the sixth unit, for the voyage to Rangoon.

In the afternoon, and while the ships and barges left behind made a funeral pyre, the flotilla set out, Reid taking a course through the Westerly channels in order to keep his charges as far away as possible from the rifle, mortar and gunfire coming from Moulmein. Through these hair-raising and perilous attentions he took his ships and set his course for Rangoon, arriving safely the next day. For his services he received a Mention in Despatches. He is now Lieutenant-Colonel J. Reid, serving with G. H. Q. (I.).

The two little vessels at the Sittang Bridge next came into action. In that holocaust they perished by fire.

While these tragic events were happening the tempo of distress in Rangoon was quickening. There was a twofold evacuation. Those Burmese who had no special reason to fear a Japanese invasion sought the quiet and safety of the Delta towns to escape the impersonal bombing of the capital. These people and their household belongings choked the small ships of the Delta fleet, which all continued to run to schedule and with commendable steadiness. On the other hand, Indians and Anglo-Indians continued to besiege the big main-line steamers with a view to ultimate escape to India through the various hill tracks should the worst eventuate, as indeed it did.

The incidents at the Sittang Bridge precipitated the civilian evacuation of Rangoon, the order for which was issued on February 21, 1942. The scenes at all points of transportation departure were the same—great crowds and great masses of luggage in bulgy bundles, crying children, distressed mothers, harassed transport officials. But, in the end, everyone who so desired got away.

The Irrawaddy Flotilla services running in to Rangoon comprised roughly 60 ships of all sizes daily, while there were a further 70 based on various Delta centres which did not include Rangoon in their itinerary. These ships were all intercepted and diverted up-country in an orderly and efficient manner by the Company's staff, but the service of vessels necessary to maintain the military L. of C. was continued into and out of Rangoon. At the same time the Company provided flats and barges for the evacuation of "denial" stores from such centres as mills and oil refineries in the Rangoon area for so long as this service was demanded. All these stores were conveyed up-country.

A nucleus of vessels had been retained in Rangoon sufficient for the transportation to safety of the gallant band of "last-ditchers" who stood by for the final demolitions. This act took place on March 7, 1942, but by that time the Japanese with Burmese supporters had infiltrated into the Delta, and it was apprehended that the vessels would meet certain disaster if any one narrow creek should be held by the enemy. The escape of the "last-ditchers," therefore, was effected instead by deep-sea ships lying in the mouth of the Rangoon river, whence they proceeded by the help of the little vessels of the Flotilla, after which these little handmaidens took their neat red bands with them into the depths of the Rangoon river estuary near Dry Tree Point.

So grew steadily the toll of the grand little ships whose tale of service was ended. Two tugs and a diesel-driven barge and the unconquered little WEENO still in her battledress of grey, put out to sea, scuttled back to the shelter of the big fellows when fired upon, by the faithful guard-ship at the far approaches and eventually reached Akyab.

The Manager of the Company, John Morton, was all this time assuring that the fullest service to Government and the Army should be rendered, and he was in continuous contact with the Military Director of Transportation and also with Government and Army Headquarters.

To pass the considerable fleet, as well as no mean number of independent craft, up the main river, "gates" were established at key points. Passenger and goods services ran down to Henzada until early in March and then were shortened to Prome, and so on thereafter. In accordance with the military situation, they approached as near the fringe of fighting as necessity required. As the navigating limits became foreshortened, the heavily-laden dumb craft and their equally encumbered powered vessels (the latter still festooned with refugees and their kit) struggled farther upstream.

Some of the powered vessels performed prodigious feats in deadweight transportation when the need arose. Behold a neat 200-foot passenger paddler of 91 nominal horse-power, accustomed to sweep her dainty way at 14 miles per hour between Prome and Mandalay to the delight of the riverine populations in her path. Behold her in early April herding a miscellaneous brood of dumb things upriver; a brood consisting of a sister as big as herself, unhappily *hors de combat*; two 200-foot flats laden with denial stores and six 90-foot barges of miscellaneous burdens. This sensational collection, almost exactly as broad as long and looking like an overburdened magic carpet awash, slowly surges upriver against no inconsiderable current. Comes one down from upstream and beholds this apparition with disbelief but supreme approbation, identifying a figure which appears to be responsible for the whole affair ensconced in a sort of mobile foxhole with only his eyebrows jutting above the parapet. "Why, you're not moving!" goes forth the challenge. Comes a wave of a hand in return, and a voice from far away floats back: "Oh! yes I am—three knots."

During those days of retreat along the Irrawaddy there must be many a soldier, British and Indian, who will remember with gratitude how, when marooned on sandbanks after being cut off from their units, they beheld the ships with the red-banded funnel and the red belting and white upperworks turn in to their rescue. But perhaps this is an artistic exaggeration, so far as the decorative scheme of the ships is concerned, for to render them less conspicuous it became the custom to plaster them with camouflaging Irrawaddy mud.

As April wore on and the loss of the lower reaches of the river continued, the water at Mandalay began to wear a fantastic appearance. There were so many ships and barges coming in and passing through that a fairway was maintained only with the greatest difficulty. Henley at Regatta time was never more congested, only there was no mirth here; all lay under the grimness of a realisation that the end could not be far off.

No mirth? Wrong—the high priest of mirth was there in the person, no less, of John Morton, the Manager. To keep that fairway clear needed the services of a “policeman” launch. Crews were beginning to slip away now and abandon their vessels at anchor, and personnel could not be spared even for the “policeman.” Two office men took over a launch and operated it from early morning to darkness, day in and day out, bustling like a sheepdog round the fleet, marshalling, advising, directing, working in a pair of shorts apiece and nothing else, because of the heat and the sweat.

As they came into the Mess at night (a chair round a table on a lawn lit by the glare of burning Mandalay), John Morton would survey them whimsically. “Enjoying yourselves, hey? I know, I know—anything but work!”

The services from Mandalay to the North ran almost to normal (with, of course, masses of refugees) until midway through April. After that efforts were directed chiefly to getting still farther upstream such ships as might later be required, and all “denial” stores, under the advice of Movement Control. Over and above this, each day the foreshore was dense with Indian refugees being gradually shipped away. Soon the remainder of these were augmented by a big descent from the Shan States of European and Anglo-Indian families.

From Bhamo the usual service ran regularly to Katha until the end of April.

But the military position was worsening to an extent that even the uninitiated could interpret, and it was natural that the Chittagonian crews of the ships, who had in the main been fairly steady, should begin to slip away in increasing numbers. At that time little was known about possible escape routes other than those being used from the Chindwin, and when the time came that ships went no longer South of Myinmu (when road and rail led to Monywa, the Chindwin, and escape) the crews were inclined to cut away and abandon there. The taking of ordinary Delta or main-line craft up the Chindwin in the low-water season of which April was part, was precluded by draft considerations.

To their great credit a considerable number of Chittagonians stood by the staff of the Company and the European Deck and Engineerroom officers, assisting these latter to operate the ships which continued to ply North from Mandalay under the advice of Movement Control. Many Chittagonian Masters or Serangs gave unwavering loyalty and service. One such was Abdul Hakim, Master of TAPING. He stood by his ship, his crew stood by him. He carried his wife and small children about with him. Towards the end of April, Japanese planes plastered Mandalay foreshore at a time when his ship, packed with refugees, was leaving the ghauts. He was on his bridge and was struck in the temple by a bomb splinter, and died.

In that same raid perished also four European Government Boiler Inspectors who, learning that they could be of maximum service by acting as Engineers on Flotilla ships, had presented themselves for duty and were proceeding to their vessels when death overtook them.

The nucleus of an Indian Inland Water Transport organization had been formed in Bengal earlier, to enlist qualified Indians under European officers for

service under military terms and conditions on Inland waters generally. As many of the small available numbers as could be spared were flown in to Burma to assist the Flotilla to perform the more definitely military part of its responsibilities and these men, though few, justified their despatch.

Against the darkening background the Flotilla laboured to fulfil faithfully its obligations to the Army and succeeded; for when the British troops crossed the Irrawaddy and passed up the Chindwin and word was given for the abandonment of Mandalay, every refugee who needed transport had been accommodated and all vital "denial" goods had gone farther upstream.

But the order to abandon Mandalay meant also the order to destroy the fleet there assembled. The staff, administrative and technical, of the Company, set to work and accomplished this. It will be realised what it meant. Apart from the sheer physical feat of sinking great numbers of steel craft, there was the human side. The staff had a deep pride in this fleet. Each powered vessel bore a name, each name was as individualistic as if it had attached to a horse or hound. Each ship's nature, characteristics and peculiarities were as familiar as those of any dumb friends.

Have you ever drowned an animal? It is to be hoped you have never needed to, but if you have, then destroying this fleet was just as bad.

And so a sad and meagre flotilla steamed North from deserted Mandalay, leaving its relatives settling on the bed of the river. At Kyaukmyaung many vessels were sunk and, more farther upstream, until Katha was reached.

It was the afternoon of May 3, 1942. By this time the Japanese were overrunning the Shan States and were reported to be bearing down upon Bhamo. For the Flotilla this was journey's end. Here at Katha lay all those "denial" stores which, with so much patience and fortitude, had been transported from Rangoon. And this was the end—they, and the craft which held them, and the ships which had brought the craft up, must all now go to the bottom. It was a night of nearly full moon, and it was as well. All through that night the staff worked, scuttling steamers, big and small, and flats and barges. In the quiet moonlight the shapes settled down in the water, some disappeared altogether. One, a small tanker, settled by the stern with its bows reared over the waters, and great drums of fuel oil rolled down its foredeck with the noise of distant thunder.

And when the wreckers reassembled, tired and sad, they were greeted by the unconquerable one, John Morton, with the old cheery sally: "Enjoying yourselves, hey? I know—I know—anything but work." This man of great heart was in due time awarded the C.B.E. He did not live long enough to add to his honours—he went down with a torpedoed ship in a gale in the North Atlantic at the end of that year.

And so the Irrawaddy Flotilla perished. It was no small thing, this sacrifice. It was made from a sense of duty, of unquestioning loyalty, of what was best for the general good, without thought for narrow self interests. It was made at a time of national fortitude which will be epitomised hereafter in the inspired and lofty exhortations of the greatest Prime Minister of all our history.

Of the fleet in Burma the sole survivors are the two tugs and the diesel-driven barge we saw safely away from Rangoon. They escaped from Akyab and reached India.

And the little WEENO in her grey dress? She sleeps deep, deep down in Akyab harbour.

PROSPECTS FOR MIDDLE-AGED EX-OFFICERS

BY ALAN RASP

IN THE last issue of this journal there appeared an article dealing with the post-war prospects of the junior officer. Although a good deal was equally applicable to the middle-aged regular about to retire with a pension, certain aspects of interest to this particular class were omitted.

Young and old have one thing in common—they are equally vague about what they intend to do after the war. Still more, the middle-aged man feels that “nothing can be done about it now.” This is one of the Great Illusions. If he does not get his facts now, study them, and make his decision before others, he will merely be in a very back row of the sheep struggling through the one gate. Only he blessed with foresight and imagination, will make a gate for himself.

The Prime Minister’s aim of “work for all,” with his desire to see the last of the drone, will be balm to many of those anticipating retirement. But is he wise who absorbs balm from those words? Did the pre-war officer ever *want* to be a drone? You’re telling him! Did the gallant commanders who peddled vacuum-cleaners do so because it was the work most suited to their many talents? Or was this shameful reward the only position for which an ungrateful country considered them fitted? No doubt it will be all very different “this time,” but at least the man who finds what his own talents are, and plans to use them accordingly, will be better off than those relying on his country to do so.

It must be admitted that already there are signs of government planning to provide work for officers—or so one supposes to be the merging of the Employment Bureau for *ex-officers* into the Ministry of Labour. Some may not like this change, feeling that they will be treated merely as a few out of a few millions, that their special qualifications may not be appreciated, and that they were better off in the days when they could pop into “their own” Bureau, gossip about Poona way back in 1944 and then get down to the business of a job suited to their abilities.

Others may feel that with a special section of the London Appointments Office of the Ministry of Labour and National Service, officially charged with the duty of finding employment, they will be better off. The reader must judge for himself. One thing is certain—if he knows what he wants, and can find or make it for himself, it is more likely to be to his taste than if found by the old Bureau or the new Ministry of Labour Section.

It so happens that the writer has a wide experience of the type of man now being employed in industries such as steel, aircraft construction, Royal Ordnance factories, Power stations, etc. He has been instrumental in placing some *ex-servicemen* in such factories, and has learned a good deal of the management’s and worker’s viewpoint.

Let us be frank and cut out wishful thinking. The prospects are poor unless the applicant has special knowledge. It is not enough to know how, say, steel is made; in each shop of each trade are innumerable processes, each calling for specialised and practical knowledge. If the post sought is of any position, it will also involve the handling of labour—labour not disciplined by military law but, on the contrary, disciplining the leader by Trade Union action!

Admittedly, the good *ex-officer* or N.C.O. could, after some experience, no doubt deal with the latter aspect. But as regards the former—well, the writer, through his daily contacts with hundreds of managers and foremen has better prospects than most of securing a post. He, however, reluctantly admits that owing to lack of technical skill, it would be unfair to seek admission.

The following incident throws light on the manager's viewpoint and may assist those aiming at industry: A Factory Defence Officer was recently required by a large undertaking. Two candidates were presented—"A," an *ex-regular* with the normal education and a magnificent record; "B," an *ex-commercial* traveller with some wartime military experience. Obviously "A" knew the job—defence. In answer to the question, "Have you any business experience?" "A" replied, "Good Lord, no!" or words to that effect, adding he knew his job as a soldier and could put their defence situation on a satisfactory basis. "B" got the job.

The manager's view was that "B" would speak the men's language, understand the shift working, overtime and shop bonus rules and so put up a better show. He has proved a great success. The depressing point to realise is that this was the case of a soldier applying for a *soldier's* job in wartime.

The lesson appears to be well summed up in a remark made to the writer by another manager—of one of the largest aircraft factories—"The *ex-army* officer or soldier does not know how to sell himself."

One of the few ways to gain a footing in industry is as a Labour or Welfare officer. Such a post, even at a low salary, is worth seeking; a fair number are available for those retiring during the war. If the applicant makes a success of it, as he well should provided he conceals the sergeant-major in his heart, he should gain valuable experience leading to useful work of not too technical a character.

There are certain approaches to the problem in general in which the middle-aged will differ from the young. He is hardly likely to submit himself to psychological tests, will have more capital, will have already made up his mind whether he wants to retire at home or abroad and will probably have decided in which particular country.

Listening to his wife's lamentations at the breakfast table, for example, the old man's fancy may lightly turn to thoughts of eggs. Herein lies danger, for the middle-aged are naturally disinclined to study the changing times in the changing countries. The Minister of Agriculture, as recently as December, 1943, issued a warning to those with visions of poultry as a post-war career. The lesson here is that even if the man knows what he wants to do and where, there is a great deal of study which he can put in during his spare time to ensure that he is up to date. The sources of information given in the previous article form a useful basis.

For the older man three things seem important—firstly, to turn his experience, talents and formed character to the best account; secondly, to seek employment offering an immediate return rather than future prospects; and thirdly, to consider the income-tax effect. These three factors call for even more careful consideration than the young in choosing between job-getting and job-making. Major headings to consider are:

- (a) If the job is "at home" or "away."
- (b) If away from an existing home, will accommodation be available before he is an old man?

- (c) If capital is required, will his own savings suffice to set up a worthwhile show?
- (d) Is it likely to boom after the war?
- (e) If the earnings will be fully taxable.
- (f) Can it be studied during the war?

It is not necessary to discuss these *seriatim*, but two will be stressed, the income-tax angle and the advantages of the job "at home."

Not every officer realises that the increase in income-tax has altered the whole outlook on the job-on-retirement problem. It is not that the tax makes it difficult to scrape along—everyone knows that. It is this. In pre-war days, a post at £300 a year was quite a tempting addition to a pension.

To-day, things are different. First, the income-tax officer, with a leer, pouches exactly half, leaving a "profit" of £150. But what if the job is a long way from one's home? If, for example, it is situated away from any possible day-schools or universities and so involves sending the children away as boarders—it may well be a cause of debit rather than profit. Even if it is within daily travel distance, will the cost of fares, lunches, teas and smarter clothes not swallow up the bulk of the £150? Will it be worth the loss in health or strain on nerves which lack of open air and the rush and scramble of civil life impose?

Some may think it worth while if they could add a net £250 to their pension: let them bear in mind that this calls for a salary of £500 a year *at a minimum*, not an easy thing to come by.

Now if the retired officer can "make" a job instead of relying on "getting it," several advantages stand out. Firstly, he will be more or less his own master. Secondly, he can probably make it round his own home and so avoid the expenses which a job away involves. There is another financial advantage, not quite so easy to explain. If he makes his job at home, he partly feeds or houses himself. Now if, for example, he is in a paid post and buys, say, eggs and vegetables costing £150 a year, he must earn £300 to pay for them (as half will go in tax). But if he keeps himself in eggs and vegetables, they will probably only cost him about £75. Net gain £225!

Similarly, if he writes, keeps, say, rabbits, P. Gs. or antique furniture in his own home, a certain amount of his income will be exempt from tax as "expenses." Furs, obviously, will be needed. There is a negligible quantity on the market and prices are still soaring. There appears to be an opening here for the officer who breeds rabbits, silver fox and the like. Equally, furniture and cabinet-making is worth investigation by the officer good with his hands. It is not a reserved occupation, and in consequence there will be a shortage of skilled and well-educated craftsmen.

In conclusion, it must be emphasised that the examples given are not cast-iron certainties of successful prospects. Certainly sound advice is essential before capital is spent. They serve rather to illustrate the lines of research and study which it is possible to carry out in one's spare time to ensure being in on the ground floor.

WELFARE AND MORAL LEADERSHIP*

BY GROUP CAPTAIN E. L. TOMKINSON, D.S.O., A.F.C., R.A.F.

THE dictionary definition of "Welfare" is: "The state or condition of doing or being well, good fortune, happiness or well-being of a person, community or thing; thriving or successful progress in life; prosperity; (ii) a source of well-being or happiness; (iii) good cheer, good living or entertainment."

The word was apparently first in general use in the English language as long ago as 1303. An author named Gower in 1390 wrote: "So overcast is my welfare that I am schapen all to strif." Browsing in the dictionary further, I picked out another phrase, written in 1718: "It was one continued series of actions for the welfare of the people."

Note that these definitions are in the right order. For instance, good cheer, good living and entertainment are useless if there is not a state of doing or being well and happy. We can fully sympathise with the 14th century writer in being "schapen al to strif" because his welfare was overcast; he obviously meant that he was unhappy in mind.

The welfare of the soul cannot be divorced from that of the body or the mind, although many people think it can. Welfare of the soul is the concern primarily of the Priest, welfare of the body is the concern of the Medical and Physical Fitness officers, but the job of Welfare, as we know it in the Forces to-day, is to help the Priest, help the Doctor, and generally to make ourselves the slaves of all concerned for the betterment of conditions.

Welfare of the soul, although primarily the affair of the Priest, can get nowhere unless and until there is fertile ground prepared for sacrifice, charitableness and kindness and service. The same applies to all other forms of service. Our very name: "The Services" implies it. Like so many things in life, welfare of the soul, mind and body are interdependent.

I started this lecture with the definitions of "Welfare" because, such is the loose way in which we use words in our language, there is an almost universal understanding that "Welfare for the Forces" or, for that matter, for the factory workers, miners and industrial concerns, is primarily concerned with providing adequate numbers of Balaclava helmets or gramophones or books. That, of course, is incorrect; these amenities are merely means to an end.

Welfare has four aims. First, the elimination of private worry from the mind, so that undivided attention can be given to duty; secondly, the improvement of living conditions, compatible with operational needs; thirdly, the provision of facilities for profitable use of leisure time; and fourthly (and this is intimately concerned with the Educational Services), the provision of facilities for vocational training according to each man's and woman's propensity.

In modern life there is a tremendous tendency towards super-specialisation. A good example is in the realms of medicine. In the old days it was the local general practitioner who knew everybody's physical troubles. He had seen the babies born, seen them later when they were courting, seen them married, and attended to the birth of the first-born of the next generation. He knew the history of the families, the little foibles. The fact that Lucy was always

*A condensation of a lecture delivered at a "Moral Leadership Course" in S. E. A. C. by Group Captain Tomkinson, Command Welfare Officer.

prone to a snuffling cold; he knew how to deal with Lucy, so he knew how to deal with Lucy's child. The same applied to business. The family grocer knew that Lucy hated pineapples but adored *foi gras*. Her daughter would probably have the same likes.

But nowadays Lucy would be sent to an Ear, Nose and Throat Specialist, who would merely treat her as a case; whilst when she is well again she would visit Harrods or another big stores, where an immaculate young gentleman, who had no interest in her beyond his commission, would sell her necessities or luxuries with complete impersonality.

My point is that the Welfare organisation cannot become responsible for the day-to-day welfare of officers, airmen or airwomen; nor is it right that it should. Welfare of the airman is the responsibility of the Commanding Officer, however big or small the unit may be. To enable him do this duty effectively and efficiently there must be a Welfare Committee in every unit. This Committee should be formed irrespective of rank or age, but its members must be keen and prepared to spend long hours off duty in the work.

The job of Command Welfare Officer is to see that the Welfare Committees and the Commanding officers are given "the tools to finish the job." The Priest cannot go to Almighty God and say: "Look, Sir, I have forty or fourteen hundred good souls all ripe for Heaven and Salvation" as if he had bought them from a shop; the urge must come from within each one of us. So with Welfare: I cannot go to the Allied Air C.-in-C. and say: "I have produced a completely happy Unit." That can only be done by Commanding Officers themselves. But in common with the Padre, I can say that I have enabled a Unit to blossom into greater contentment and moral well-being.

Let us turn to the first object of Welfare; Elimination of private worry. The essential is a firmly-linked chain of personal relationship, whereby each individual knows and has ready access to his own officer, and each officer knows his own men. In the last War and before it I would have been ashamed if I did not know all my men by name. But in this war I have met men who did not even know the name of their own Station Commander.

We in Welfare are not concerned with disciplinary grievances, except to remove anomalous cases of hardship. The principal "private worry" comes from intolerance, unhappiness, forgetfulness, or unfaithfulness in the family. But Welfare officers must be careful not to step unwanted into the private life of the individual. "Nosey Parkers" are a menace, and if an individual has felt that his posting overseas has provided him with a Heaven-sent opportunity to get away from some rasping woman, then it is not for us to prevent him so doing. All we must do is to have an organised bureau of investigation available.

My second object of Welfare was: "The improvement of living conditions compatible with operational needs." Here we are on difficult ground. We must be careful not to recapture the "Maginot-Mindedness" and the "Piccadilly-Circus mentality" we had in 1939-40 during the "phoney" war. The job of the R. A. F. in war is to kill the enemy and destroy his will to fight. This can only be achieved by offensive action. All our efforts must be directed either in flying aircraft to and from objectives or by good maintenance and Staff work enabling them to do so.

The keenness and morale of officers and men is always highest the nearer they are to the enemy. When everyone is living in *basha* huts, where one can see our soldiers advancing and our aircraft flying on their missions, it is easy to

accept uncomfortable living conditions, because one knows one is achieving the object.

But it is much more difficult for those officers and men further back in India, where, unless one has good imagination, it is often difficult to appreciate how far one's work is directly benefiting the war. In Cantonments or large towns, where perhaps 90 per cent. of the population are not the least interested in the war, it is difficult to keep up one's morale and accept uncomfortable conditions. But contentment in such surroundings can only be achieved if people take a reasonable view. We are improving all amenity buildings—but remember the bottle-neck in India is materials of all kinds for building.

Let us pass to the third object of Welfare: the provision of facilities for profitable use of leisure time, with which I would couple the provision of facilities for vocational training.

After Dunkirk we were all really staggered. We were alone; we were an entirely united nation of men and women who looked straight in front at the enemy. We devoted all our efforts to the prosecution of the war. Now, however, when we are winning, people are looking over their shoulders—a distraction which would never be tolerated in first-class boxing or in the last 10 minutes of a Cup Final. Wise people saw the red light in the German push in the Ardennes.

There must be a compromise. If we don't win the war there will be no leisure-time, and if leisure-time is allowed to assume big proportions, we shan't win the war. We must remember that when we are off duty it is the object of "Welfare" to provide facilities so that we may occupy our minds according to each one's bent. There must be no regimentation. If a man feels better and more capable of carrying out his work next day by having some hours off and seeing Betty Gable or reading a Peter Cheyney novel, then let him do so. Alternatively, if he prefers to study a book on bee-keeping or listen to Beethoven, facilities should, if possible, be provided for him.

Thus (i) Welfare is the concern of every officer; (ii) Welfare Staffs at Commands and Groups are primarily concerned with aiding and abetting the Units themselves, and are not specialists who can do the job for you; and (iii) "Welfare" impinges upon nearly every field of Air Force endeavour, and consequently has the difficult job of steering a middle course between butting in too much, or of neglecting to bring anomalies or complaints to notice. The aim must at all times be to improve and foster the offensive spirit or, in other words, to provide for the R.A.F. in S.E.A.C. a "state of doing well, a source of well-being and happiness, leading to successful progress and prosperity."

INDIAN STATE ARMY SCHOOLS

BY "RATHUMUS"

IN THE good old days recruits joined the Army in a steady flow from Rajputana. Living conditions in the sandy tracts of Bikanir, Jodhpur and Jaipur were hard, and families for many generations provided recruits for certain regiments.

In those days education was not the essential for early promotion. Sons of soldiers could acquire their education in the Regimental School, and so improve their qualifications for promotion as their military knowledge increased. Moreover, there was no great competition, and everyone started more or less from scratch.

Conditions have now changed entirely, and especially in the ranks of the Indian Armoured Corps. Men from Rajputana have discovered that recruits from British India usually have a definite advantage educationally. The qualifying basis for the I.A.C. is the 8th standard, to reach which ill-educated recruits lose valuable months and opportunities for early promotion.

Serving men, appreciating this position, are determined that their children shall not suffer from this handicap if they can do anything to obviate it. The solution is not easy. Villages in the more heavily recruited areas of Rajputana are small and widely scattered, and with indifferent communications. It is impossible to provide schools within easy, or reasonable, reach of all villages, despite the fact that the annual budget for education has been heavily increased.

* * *

Small things sometimes produce unexpectedly big results, and the substance of this article may well help in the solution of the problem.

One morning seven months ago, the Commandant of a States Forces Training Centre, out on a training drive, passed two small children lying on the roadside, obviously worn out. On inquiring, he found that they were children from the family quarters of his Unit, were on their way to a Primary School in the nearby city, and were suffering from malaria.

The fathers of the two children were on service; their mothers were at their own villages; and the children had been brought in by uncles in order that they might have the opportunity of getting some education. There were no schools within reach of their homes.

An idea developed in the Commandant's mind. He had an old disused Signal school in his lines, and obtained permission to start a school in it. It was not his intention to make it a normal Regimental children's school. He worked out a scheme by which parents could send their children to the Training Centre, on condition that they paid for food and clothing.

The State Educational authorities gave willing assistance, and have provided some school equipment and the pay of the teachers. Teachers are appointed in accordance with the proportion of teachers to pupils laid down by the State. Now, seven months after the start of the scheme, there are no fewer than eighty boys at the school.

What is extraordinary about the scheme is that the mothers of none of these children are in the family lines of the unit. With their husbands serving out of the State, mothers of these children have been willing to send their boys to

this Regimental School, knowing that they will be safe there and knowing also that there will always be relatives of their own or of their husbands, or men from their own villages, at the Centre.

The children get the usual holidays, and it has always been possible to find men going on leave to their villages to take the children home, and to bring them back. A school uniform has been designed, and parents willingly pay for it. As catering is done communally, boarding charges are low. P.T. and games are run by volunteers from the lines in their spare time.

* * *

The scheme seems to suggest an idea for new enterprise in Indian States maintaining States Forces. In States with no States Forces, the headquarters of the State Police might take the place of the States Forces Training Centre.

Headquarters of States Forces are permanent. The Q. M. of a State unit deals with so many different matters that the addition of a children's school would hardly be noticed. All ancillary services exist in the Unit lines, and the M.O. of the centre could assume medical charge of the schools.

From a morale point of view, the scheme seems excellent, for serving soldiers will be heartened to know that their children are being educated, while mothers are obviously willing to send their children away to such a school to gain the advantages of education.

Inspections and administration would have to be left to the States concerned, but liaison should be comparatively easy through the co-operation of the Military Adviser-in-Chief, Indian States Forces.

True, this school was originally started to meet the requirements of States Forces personnel, but, assisted by grants in lieu of scholarships to would-be students, would it not be possible to build on this foundation, so that personnel of the Indian Army recruited from different States should be able to send their boys to a State Army school?

* * *

One great advantage of the scheme is that it can be put into operation immediately, as barrack accommodation is usually available. Later, of course, bigger buildings could be put up with money from Post-war Reconstruction Funds, for they would be permanent Institutions for the benefit of soldiers and their descendants. Teachers, salaries, equipment, etc., would naturally be met from State Education departments.

As to the need of the venture, no one will deny that education facilities for the children of soldiers in the Indian Army or in States Forces should be provided as quickly as possible. It is not a matter to "leave till after the war."

In British India, Provincial Governments can take action. In Indian States the position is somewhat different, as there both men of the States Forces (a direct concern of the State) and men of the Armed Forces of India (a Government of India concern) are involved.

It is fully realised that many Training Centres have post-war schemes for the establishment of children's schools in the lines of the Training Centres, to be run much on the same lines as the excellent school at the Mahratta Training Centre, Belgaum. But Training Centres in British India are, in many cases, distant from recruiting areas in Indian States, and mothers may be unwilling to allow their children to go so far afield. But inside State boundaries parents are ready to trust their children to relations and friends, knowing that they can visit the capital of the State if they wish to see their children.

It may be said that it will be difficult to balance the claims of personnel of States Forces and personnel of the Indian Armed Forces, and that the whole question will need careful adjustment between States and the Government of India through the Political Department.

Units of the States Forces and of the Indian Army, however, are now fighting in the same formations on equal rates of pay. Difficulties were encountered in the early stages of the war, but they have now been smoothed out, and there seems no good reason why these State Army schools should not be able to cater both for the children of men of the States Forces and of the Indian Army from the same State.

Hitherto it has been difficult to fill vacancies at K.G.R.I.M. Colleges with suitable candidates from Rajputana, but an expansion of this scheme would certainly ensure a regular supply of youths of a sufficiently high standard. Moreover, many boys could be passed on to the Boys' Training Companies; having been brought up in healthy surroundings and fed on a balanced diet, they would make admirable recruits.

Altogether, it seems that here is a project which can do an immense amount of good for the future soldier of the States Forces, possibly for future soldiers of the Indian Army, and certainly for the future of their country.

LETTERS TO THE EDITOR**AN APPRECIATIVE LETTER***To the Editor of the U. S. I. "Journal."*

DEAR EDITOR,

I have just been through your October, 1944, issue, and feel I must congratulate you on having secured such a really excellent series of articles—no duds!

May you long continue such, and all good wishes for 1945.

Yours sincerely,
BIRDWOOD OF ANZAC.

Hampton Court Palace.

[This gives us the opportunity of expressing our thanks to Field-Marshal Lord Birdwood and also to many other members for their kindly letters of appreciation.—Ed., *U.S.I. "Journal."*]

ONE-CLASS BRIGADES*To The Editor of the U. S. I. "Journal"*

DEAR SIR,

Discussion in the Mess the other evening turned on advantages of one-class Brigades as compared with Brigades containing British, Indian and Gurkha units.

I suggest that one-class Brigades have very marked advantages, among them being:

- (a) All classes, British, Indian and Gurkhas would greatly prefer it. Blood is thicker than water.
- (b) Brigade spirit would be terrific.
- (c) It would raise the standard. The weaker Battalion or Battalions would tend to improve.
- (d) It would be good for morale.
- (e) More amenities could be provided. For instance, one concert party could entertain the whole Brigade; one canteen could more easily cater for all tastes.
- (f) The rationing problem would be greatly simplified. How the air supply organization would bless it!

The only disadvantage I can see is related to internal security. Surely the development of air transport has solved that one.

I have stressed the increase in morale, contentment and efficiency which would ensue. All three are war-winners.

S.E.A.C.

Yours faithfully,
"ISTUFEEN."

"AUSPEX" ON OUR JANUARY NUMBER

To The Editor, of the U. S. I. "Journal"

DEAR SIR,

Here are some remarks on the January issue of the Journal.

Colonel Forman, in his entertaining article, "Penny Wise, Pound Foolish," presses for an integrated Service. From what I have seen in this war I should say that the majority of the Army wish to see the higher commands and staffs, base administrations and "I" integrated for all three Services. Without it some confusion and waste of effort will continue. My own agreement to this principle was given in, I think, 1940 in an article in your pages on Military Research. But we strive against the attitude of mind so well exemplified on page 30 of the January number of your Journal.

On page 9, para. 2, I think Colonel Forman implies that I have compared the training of the majority of our officers with that of officers of other nations. As far as I am aware, I have not made this comparison. I have wished to associate myself with the views expressed in Siegfried P's quotations on pages 111 and 112, particularly with Napoleon, Henderson and Sir Charles Napier—if any of these will associate with me.

Let me turn to the article on "Peace Terms" (page 73.) One hears and reads these days a vast number of opinions on the subject of Peace Terms for Germany. One term on which most writers agree is that this generation of Germans must not again be trusted with arms. Other equally stern measures are advocated. But most of these advocates shy at the prospect of prolonged occupation. Such stern conditions can only be enforced by prolonged occupation of the country, in order to keep close scrutiny on the activities of a somewhat slippery people.

It seems to me that the solution lies in the formation of a Western European Commonwealth, headed by Britain, in which Germany, France, Norway and probably Czech-land and some smaller states would be included. Population and frontier difficulties of N. W. Europe should be more easily solved in this matter, and Germany at last be shown a better way of life.

"Walden's" letter on page 144 raises, as you say, an interesting point. I believe him to be right in holding that good saluting and other such soldierly things are only symptomatic of a good unit. We have a lot of outworn ideas to shed: one sees the reactionary of the Army already raising his uninteresting features from the mire, along with the pacifists and the appeasers—a dreary gang who made this war possible.

During recent years I have seen more than one super-smart unit that was an ineffective performer in battle. The matter is reviewed more fully in an article in the *Army Quarterly* of October, 1944, entitled "The Preparation of Infantry for Battle." "Walden" might care to turn it up.

"Istufeen's" letter on page 147 on "Basic Training and Morale" is disappointing, for in North Africa and in the M. E. F. generally, Indian soldiers, combatant and technical, were noted above all others for their turnout and soldierly conduct in public places—as well as for their fighting propensities.

What has happened "near the Brahmaputra"?

Yours faithfully,

"AUSPEX."

FOR THOSE WHO FIND URDU DIFFICULT

To the Editor of the U. S. I. "Journal."

DEAR SIR,

On the eve of my departure from India I leave with many happy memories, but with some unhappy ones. The latter includes the hours I have spent wrestling with Urdu.

May I say that much unnecessary heartburning is caused amongst officers landing in this country at the thought of having to pass an examination in the language? They should, by the way, pay no attention whatever to the remark of the lad from Somerset who said: "Er do zeem a bit 'ard." No, it is not, if you use a little commonsense, ingenuity and have recourse to basic principles.

Many of your readers must be experts, but I hope they will bear with me for a few moments in saying a few things about the language; I could say much more, but space (and you, Mr. Editor) would probably cut it out.

It must be borne in mind that by having a small vocabulary three times as many words as are really needful must be used; and must be uttered in the most strident tone of voice possible. An imitation of a circular saw is the nearest approach to a pure accent. However, by adhering to basic principles your vocabulary can be limited by 75 per cent.

There are, of course, snags. For instance, *chupatties* must not be confused with *chaprassis*. It is the former that lie heavily on the stomach. Then again: "Steak and chips and jilde" does not mean "Steak and chips and gravy." *Jaldi* means quick, or at the double—a form of locomotion, I regret to say, seldom seen in this country.

"Double" also means *barra*, which can be used in connection with *Sahib*. *Sahibs* are also *chhota*; this is of lowly rank, such as Captains. Very lowly ranks are known as *Wallahs*, which are again divided into *barras* and *chhotas*, depending upon the amount of *baksheesh* they are able to amass. Exceptional cases grade as *badmashis*.

Names are misleading, too. Before I came to India I thought the famous *Ganga Din* got his name from the noise he created, but I realise now that the *din* had nothing to do with it.

But to return to our *chairies* (you see how easy it all becomes?). The idea of basic Urdu is to put what you desire to express into the exact literal translation. Never mind about the grammar. That is just a ramp on the part of the *munshi*. For instance, with your *chhota hazri* you want your Eno's Fruit Salt. Just murmur: *Wuh janta phul namak*, and you will most likely get it—or, of course, you may only get a *kala dekho*.

At breakfast, just ask for *Do shahbash anda*, and if you're lucky two well-done eggs will come up in no time. In fact, you'll feel so bucked that you might well say: *Hukm hakim*, which being translated, means "Just what the Doctor ordered." The coffee may not be to your liking, so just send it away, saying *Dekho garm*, meaning "luke-warm."

Horse riding is next on your list, and you naturally want an *achchha roti ghora*. Anyone knows that is a well-bred one. The owner tells you he wants *ath rupiya* an hour to hire it, and all you have to answer is *Tum bolne ham*, or "You're telling me." The horse may be a bit restive, and an occasional *Tum lakri lakri tum* will show him who is master.

Fond of children? Then what could be nicer than to visit your bearer's quarters and give his children a rendering of *Chhota Bo Dekho*, better known to us Westerners as "Little Bo Peep." If they are musical, a rendering of *Chuna bangla pila*, or Limehouse Blues, would go down well.

You may be fond of sago pudding (why, I can't think), so just order *Bolo jao* pudding. The all-prevalent cold assails you, so just go to the *hakim* and say: *Murgi thanda*. He will quickly see that you really have got a foul cold and will do the needful.

One could go on for ever, but it will be obvious by now that the language is simplicity itself if fundamental principles are applied. So don't be discouraged if the indigenous inhabitant does not understand you. He's stupid—and anyway *you* do know what you're talking about.

SIMLA :

Yours truly,
JOHN MOORE, *Captain*.

NOTES BY THE SECRETARY

Secretary's New Address

Will members please note that letters for the Secretary should in future be addressed to Major H. C. Druett, c/o University Camp, Old Delhi. Communications concerning subscriptions and requests for books from the Library should be sent as in the past to the headquarters of the Institution in Simla.

New Members

The following new members have been elected to membership of the Institution during the past three months. In addition, six officers' messes have become subscribing members during the same period :

Aitken, Captain W.,	Lindsay, Lieut.-Colonel H. J. M.,
Anger, Captain A.D.,	Lockley, Captain P. A.,
Bacon, Captain F. J.,	Lyon, Major W. G.,
Barfield, Lieut. J. K.,	Martin, Colonel G. C.,
Bevan, Captain B. J.,	Miller, Lieut.-Colonel T. L. T.,
Bhanot, F/O T. N.,	Mizen, Brigadier L. R.,
Bourne, G. C., Esq., I.C.S.,	Montgomery, Captain R. A.,
Boyd, Major F. L.,	Mullaly, Major H. S.,
Bristow, Lieut.-Colonel R.,	Nader, Lieut. A.,
Carter, Major A. C.,	Narinder Singh Anand, Lieut.,
Casson, Major J.W.F.,	Nevins, Major T. H. F.,
Cooper, Major V. J. C.,	Newland, Major G.E.C., M.C.,
Court, Lieut. A. S.,	Oswald, Lieut.-Colonel G. H.,
Cowley, Lieut.-Colonel H. G.,	Raghuraj Singh, Major M.,
*Davison, Lieut. J.,	Ray, Lieut.-Commander R. M., R.I.N.V.R.,
Dayal, Lieut. R. S.,	Reading, Major M. P. N.,
Denman, Lieut.-Colonel P. D.,	Ross, Lieut.-Colonel J. McL.,
Donovan, Major H. L.,	Sahay Vishnu, Esq., I. C. S.,
Ewell, Major E. J.,	Skinn, A. H. Stanton, Esq.,
Fitch, Lieut.-Colonel F. S.,	Speller, Colonel N., M. B. E.,
*Fraser, Lieut.-Colonel J. N., M. C.,	Tharyan, Captain T.,
Godwin-Austen, Lieut.-General A. R.,	Udham Singh Boparai, Major.,
C. B., O.B.E., M. C.,	Wade, Lieut. G.,
Going, Major R. J.,	Warner, H. W., Esq., I. P. (Burma)
Harrison, Brigadier T. R., D. S. O.,	Welshman, 2/Lieut. J. F.,
Hellicar, Lieut.-Colonel A. G.,	Wilson, Major E. C. T.,
Hinchliffe, Lieut. J. E.,	Wookey, Lieut.-Colonel H. F.,
Keays-Byrne, Major P. C.,	Wordsworth, Major-General R. H., C.B.,
Leatherdale, Captain D.,	O. B. E.

For Gallant Conduct

The following members have been awarded the honours indicated for gallant and distinguished services in Burma and on the Eastern Frontier of India :

C.B.E.—Major-General A. H. J. Snelling, O. B. E., Major-General in charge of Administration, Fourteenth Army ; Major-General D. D. Gracey,

O.B.E., M.C., Commander, 20th Indian Division; Brigadier R. F. Colvill, M.B.E., Indian Artillery; Brigadier D.A.L. MacKenzie, D.S.O., late 12th Frontier Force Regiment.

D.S.O.—Brigadier H. V. Collingridge, Indian Army; Major D. C. B. Helms, 1st Punjab Regiment; Lieut.-Colonel J. R. Booth, 14th Punjab Regiment; Lieut.-Colonel J. Denholm-Young, Frontier Force Rifles, Lieut.-Colonel R. A. Hutton, O.B.E., 2nd Gurkha Rifles.

O.B.E.—Lieut.-Colonel J. F. Crimmin, Indian Armoured Corps; Lieut.-Colonel J. A. C. D'Apice, 1st Punjab Regiment; Lieutenant-Colonel J. O. F. Maurice, Indian States Forces; Lieut.-Colonel G. K. Cassels, Royal Engineers.

For gallant and distinguished services in Italy the D.S.O. has been awarded to Lieut.-Colonel P. R. Macnamara, 18th Punjab Regiment, and to Lieut.-Colonel W. Somerville, M.C., 3rd Gurkha Rifles, and the M.C. to Major C. P. Chenevix-Trench, Hodson's Horse.

Gold Medal Essay Competition

Entries for the 1944-45 Competition must reach the Secretary by June 30, 1945. The subject selected is:

"During the present war there have been certain limiting factors to the expansion of the Armed forces of India as regards personnel, equipment and armaments. Consider in relation to any one, or all three Services, in what manner they could in future best meet their peace-time commitments within the probable limitations of post-war finance, and at the same time form a sounder basis for expansion if the need should occur."

Full details of the rules governing the competition will be found elsewhere in this issue.

MacGregor Memorial Medal

Recommendations for the award of the MacGregor Memorial Medal should be submitted by May 1 of each year.

The MacGregor Memorial Medal was founded in 1888 as a memorial to the late Major-General Sir Charles MacGregor, who founded the United Service Institution of India. It is awarded for the best military reconnaissance or journey of exploration of the year which, during the war, may have been achieved during an escape from a Far Eastern enemy country into, for instance, India.

The awards are made in June, and are: (a) For officers, British or Indian, silver medal, and (b) for soldiers, British or Indian, a silver medal with Rs. 100 as gratuity. For especially valuable work, a gold medal may be awarded in place of one of the silver medals, whenever the administrators of the Fund deem it desirable. The Council may also award a special additional silver medal, without gratuity, to a soldier, for specially good work.

The award of the medals is made by His Excellency the Commander-in-Chief, India, as Vice-Patron, and the Council of the United Service Institution of India, who were appointed administrators of the Fund by the MacGregor Memorial Committee.

Eligibility for the award is open to: (a) Officers and other ranks of all forces of the British Commonwealth of Nations while serving with the India Establishment, or with South East Asia Command during the present War. (b) Officers and other ranks of the Royal Indian Navy, Indian Army, Indian Air

Force and of the Indian States Forces, wherever serving. (The term "Indian Army" includes the Indian Auxiliary and Territorial Forces, Frontier Militia, Levies, Military Police and Military Corps under local governments.)

Personal risk to life during the reconnaissance or exploration is not a necessary qualification for the award of the medal: but, in the event of two journeys being of equal value, the man who has incurred the greater risk will be considered to have the greater claim to the award.

When the work of the year has either not been of sufficient value or notice of it has been received too late for consideration before the Council Meeting, the medal may be awarded for any reconnaissance during previous years considered by His Excellency the Commander-in-Chief in India to deserve it.

The medal may be worn in uniform by Indian soldiers on ceremonial parades, suspended round the neck by the ribbon issued with the medal. Replacements of the ribbon may be obtained on payment from the Secretary, United Service Institution of India, Simla.

Contributions to the Journal

Articles on matters of military, naval and air force interest are welcomed. They should not exceed 5,000 words in length, and preferably should run to 3,000 words. Contributions should be typewritten, double spacing, and in view of the paper shortage, may be typed on both sides, providing a moderately thick paper is used.

Contributors unable to submit articles already typed may send them in manuscript form, and arrangements will be made for them to be typed in Simla, the small charge being deducted from the contributor's fee. Payment is made on publication, at rates up to Rs. 150 according to the value of the contribution.

All articles dealing with military subjects are submitted to the authorities before publication, for security reasons. Contributions may, if the author desires, appear under a pseudonym; in such cases, the name of the author remains strictly confidential. The right to omit or amend any part of an article is reserved by the Executive Committee.

Library

An extensive library is available for members of the Institution at the headquarters in Simla. Books may be loaned to members resident in India, and those borrowing works in person must enter particulars in the book provided. Members stationed outside Simla may receive books on application; they will be sent post-free by registered parcel post, and must be returned within two months, or immediately on recall. No more than three volumes may be issued at any one time. Reference books and works marked "Confidential" may not be removed from the library.

Members wishing to retain a work for more than two months should notify the Secretary to that effect. If, after the expiration of three weeks from the date of issue a book is wanted by another member, it will be recalled. Should a book not be returned within fourteen days of the date of recall, it must be paid for, the cost of lost or defaced books being refunded by the member to whom they were issued. Such volumes which have become out of print will be valued by the Executive Committee, the members being required to pay the cost so fixed.

The issue of a book to any member under the above rules implies the latter's agreement with the regulations.

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The Journal

of the

United Service Institution of India

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GOLD MEDAL PRIZE ESSAY COMPETITION

The Council has selected the following subject for the Gold Medal Prize Essay Competition for 1946:

"Co-ordination and control in peace and war of the forces of all three services, British and Dominion, in the Indian Ocean and neighbouring territories."

The interdependence of the three Fighting Services, one upon another, has been demonstrated time and again during the present war. The success achieved when the three have planned and operated with one object and under a unified direction has been remarkable. This has, however, tended to create a complicated system of command with large staffs.

Bearing in mind the necessity for the three Services to continue to train to operate as one whole, and the danger in peacetime of each retiring into its own watertight compartment, examine the possible ways of evolving from our own war experience a simplified system of command which will ensure the closest inter-service co-ordination for the Commonwealth forces in peace and in war.

A definition of the geographical scope has been left to the essayist to develop.

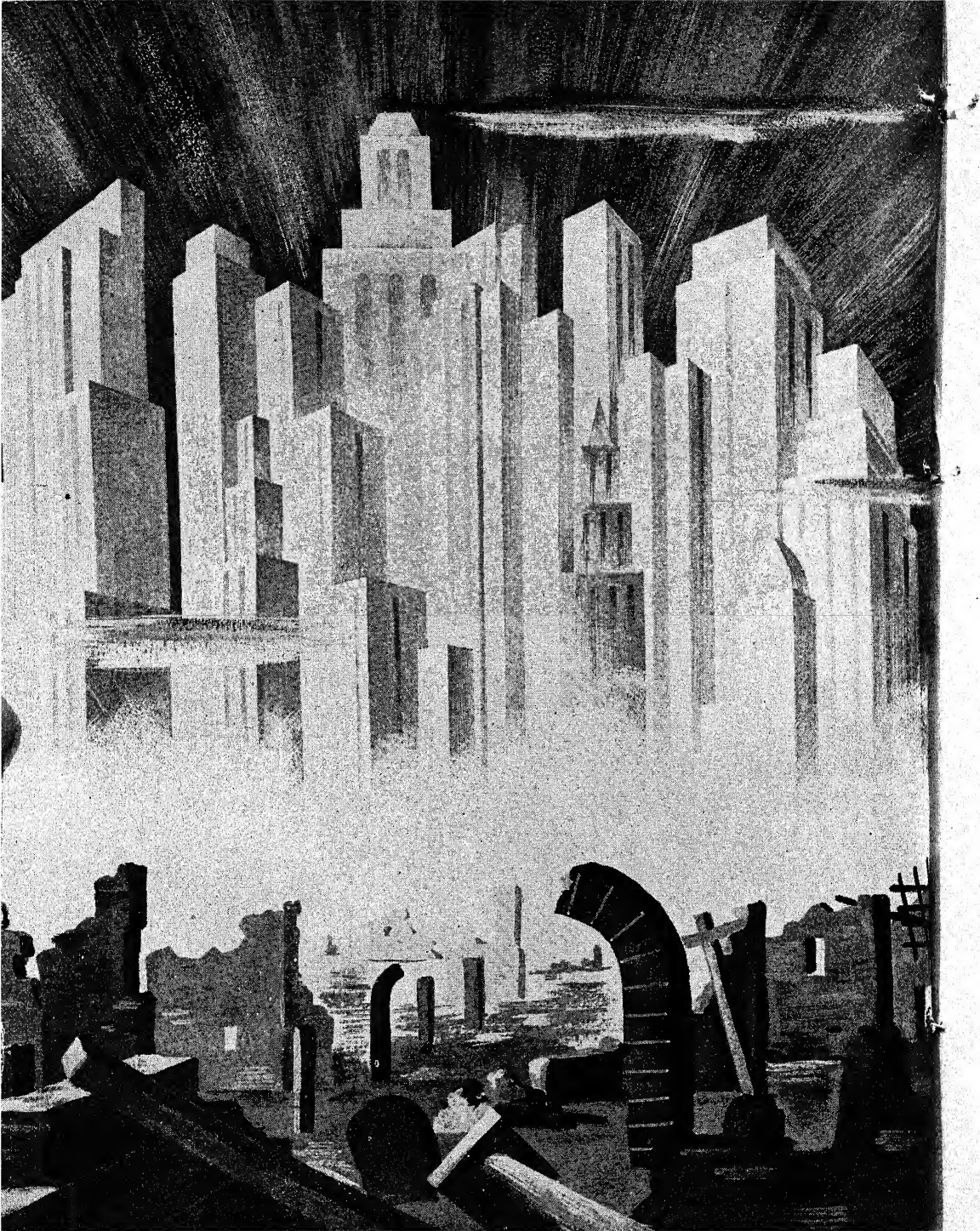
Entries are invited from all commissioned officers of His Majesty's Forces, from gazetted officers of the Civil Administration in India, and from officers of the Indian States Forces.

Essays, which should be typewritten (double spacing) and submitted in triplicate, must be received by the Secretary, United Service Institution of India, Simla, on or before June 30, 1946. In order that the anonymity of each candidate should be preserved, a motto should be written at the top of each entry. A sealed envelope, bearing on the outside the motto, and containing inside the name and address of the author of the essay, must accompany each entry.

Entries should not exceed fifteen pages (approx. 8,000 words) of the size and style of the Journal. Should any authority be quoted in the essay, the title of the work referred to should be given.

Three judges chosen by the Council will adjudicate. They may recommend a money award not exceeding Rs. 500, either in addition to, or in substitution of, the Gold Medal, and will submit their decision to the Council. The name of the successful candidate will be published in the October, 1946 issue of the Journal.

Copyright of all essays submitted will be reserved by the Council of the United Service Institution of India.



The Dawn of a New Age

The Journal
of the
United Service Institution of India

Vol. LXXV

JULY, 1945

No. 320

"...AND VICTORY"

*In the grim, dark day, when all seemed lost
Save faith in God and Right;
We were offered sweat and toil and tears,
The privilege to fight
For the simple joys of the simple man,
Freedom of creed and speech;
And, when the walls of the world were down
Great Britain held the breach.*

*From Ind. and the Empire's far-flung lands
The sons of freedom came
To share the arduous, long-drawn fray;
To win undying fame.
And the blood they shed and a Nation's grief
And the toll of toil and sweat,
No tongue nor pen can fully tell, but
The world will not forget.*

*The breach was held while the world, amazed,
Girded itself for strife;
And the Eagle and the Northern Bear
Brought help and hope and life.
But bitter indeed was the price they paid
Ere the "Herrenvolk" cried, "Done!"
Having learnt the truth we always knew,
"Man owns no Lord save One."*

*There is still a toll of blood and tears
And labour to be paid,
Ere the Eastern Tyrant bows his head
And th' last "Last Post" is played.
Though the path we've trod has been long and hard
And maugre the foeman's might;
We have not suffered nor toiled in vain,
The end is now in sight.*

—A. H. MORTIMER.

MATTERS OF MOMENT

THE WAR in the West has been won, and Germany, the inventor of total war, is now justly suffering total defeat. The Nazi bubble has burst. In every sphere their forces have been decisively beaten by Allied superiority; on the sea Allied Navies have won by their silent and inexorable application of sea power; the Air Forces have thrashed the enemy out of existence; and the Armies, mechanised but still led by the stolid Infantryman, have rolled back the once proud Wehrmacht by superb generalship and deployment of land power. Never in all history have advancing armies uncovered such terrors; even the slave empires of old did not reveal a depravity so inhuman as Germany has practised in the last decade, and history will show that her rulers were the instigators of a systematic cruelty more pitiless than that of the lowest animals. The first part of their punishment has been meted out to them, and the realistic action of General Eisenhower in ordering inhabitants to bury those so cruelly murdered in the concentration camps contrast strangely with the Press interviews and pictures of Goering strutting serenely in his uniform. A reader of this Journal, now residing in England, not long ago took us to task for referring to the Huns as a "nation of carnivorous sheep," adding that most Germans had fought decently. Few soldiers will agree with that assertion—which admittedly was written before the Germans instituted a systematic starvation policy in Holland, before the public outside Germany had obtained evidence of the savageries and tortures of the concentration camp, and before their cruel treatment of prisoners of war was broadcast to the world. "Fighting" connotes the actions of nations at war outside as well as inside operational areas, and judged by that criterion, Germany could not sink lower.

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No alibi can this time disprove that German generals were outmanœuvred and their men outfought. Since July 1, 1942 when, as a result of the vision of our Commander-in-Chief, General Auchinleck, the Germans were held in their drive to Cairo and onwards, the Allies in the West have slowly and systematically destroyed the enemy's power. El Alamein, indeed, can rightly be said to be coupled with Stalingrad as the turning point of the war. Since then, shining as beacons along the road to freedom, have been the landings in North Africa on November 8, 1942, the end of German resistance in Stalingrad on February 2, 1943, the squeezing of the Germans into Tunisia, the invasion of Sicily on

**Landmarks
to Victory**

July 9, 1943, the historic landing in Normandy on June 6, 1944, the lightning liberation of France and Belgium, the entry into Germany from the West on September 5, 1944, while from the East the Russians, in great strategical drives, were recovering cities and towns long taken by the Germans. With the advancing American, British, Canadian and French forces from the West came the fury of the Air Forces in an increasing crescendo of power. Destruction of oil dumps, railways, concentrations, all helped to put the enemy to confusion. Parachutists behind the lines, arms and ammunition dropped to the gallant *Maquis*, Allied supporters dropped by air, even pigeons with messages showing the exact location of German headquarters, are only a few of the unusual features of Allied superiority. The Germans may have astounded the world in the early stages by strange and unexpected methods of attack, but the end showed Allied inventors, scientists and leaders to be far ahead of the Nazis. Gradually the grand strategical plan fashioned in Teheran, in Moscow and in Yalta became clear and Hitler's vaunted Army was crushed.

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One of the outstanding lessons of this war which civilians as well as soldiers have learned is that countries coveted by aggressors will henceforth no longer be able to rely on defensive strategy to give them time to build up armaments and train armies. This is a circumstance peculiarly applicable to the British Commonwealth. In all spheres—arsenals, research, training—countries will have to be alert, for a treacherous enemy can to-day release his weapons of destruction in the minimum of time. Unpreparedness in the future will spell doom. Preparedness spells sacrifice, and countries will find that keeping armaments up-to-date, employing teams of scientists and maintaining armies up to strength cannot be done "on the cheap." It has been tried, and very nearly meant the extinction of freedom. Such military preparations need not carry with them a national military spirit; to be ready for defence is not to be guilty of aggression, but it is a duty to ourselves and to the cause for which thousands of brave men have died that we should maintain adequate armed forces. Thus we enter on this era of peace—for, with the might of the United Nations crashing on Japan, we can be certain of her collapse—fortified by the knowledge that nations can co-operate if the spirit is there. Americans, Russians and the peoples of the British Commonwealth have all shown that they possess in marked degree the tools of courage, unity, singleness of purpose and faith. They are the tools of peace as of war. They are the spiritual implements which have carried us to victory. Human society, culture and civilisation all demand faith among men and among nations, and from the foundations being laid at San Francisco may there rise an era of peace and prosperity, of dignity and loyalty, the like of which we of this generation have never seen.

INDIA'S vast contribution to this world-wide war is outlined in an article in this issue. It is timely to ponder over those facts, many of which are revealed for the first time, for the aftermath of this war will not only be that India's financial position will have been completely transformed, but her economic power will have placed her among the higher industrial countries of the world. Problems of production are outside the scope of this Journal, but their implications have a very definite bearing on India's

**Safeguarding
India's
Future**

future defence requirements. It is crystal clear that India has within her borders the machinery for equipping a vast army with the thousand and one items needed for modern military defence. She is self-sufficient. She has the men, but as the years pass by the young, virile members of the population will be followed by others who have not been trained in the hard school of war. It is they to whom we must look to complete the circle, and it is on their training and education that the future safety of this great country will depend. That is why we have frequently published articles stressing the importance of education in regard to India's future Armed forces. For years much has been done in this direction. The K.G.R.I.M. Colleges have trained thousands; the Boys Companies attached to Training Centres are doing fine work with the youth of the country; plans have been drawn up for compulsory education which will ensure the education of crores of boys and girls. When, ten or fifteen years hence, India's youths and daughters become educated, she will have all the requisites for fully defending her borders. Her natural resources can and will be harnessed; her industries will be able to supply equipment and munitions; her population will be intellectually trained. All this is no dream; it all forms part of the pattern on which India can and must fashion its future.

** ** ** ** **

WELFARE for the troops has recently been so much in the limelight that the readiness of military authority to arrange for editors of the public Press of India and others to visit units overseas cannot but have been welcomed. One such visitor writes frankly of his impressions in this issue. He says that Indian troops are held in high esteem by their comrades-in-arms; that in the sphere of amenities, etc., they are well looked after; that they are well fed, and nursed carefully in hospital.

**Women in
Welfare**

He sounds a critical note, however, in regard to the absence in welfare and recreational centres of the counterpart of the British women workers who voluntarily introduce into such places the feminine touch, and who, by arranging pictures, flowers, books, etc., and providing a local seamstress and sewing machine help to make the life of the British soldier more pleasant. Of these women, writes our contributor, the Indian soldier has none yet. Why? The question touched on one of the fundamentals of welfare work for the Indian Forces. India has many good public speakers but lamentably few public-spirited citizens in relation to its population. And public-spirited women are even fewer still. Some there are, and they do grand work, but education for women has not yet inculcated on a big enough scale that desire for voluntary public service which, for instance, prompts a visit to a hospital patient, a wish to serve cups of tea to their fellow-countrymen, or a keenness to help their compatriots overseas. The lack of this fundamental is the main reason for the absence of voluntary women workers among Indians serving in the Forces. That they would receive a warm welcome is certain—not only from those whose job it is to look after the welfare of Indian troops, but—and this is of more importance—from the soldiers themselves. Public service freely given is the foundation of any country's progress—and this war has shown that it applies to women as well as men.

FINANCIAL CONTROL AND PAPER

BY "MILLSTONE"

IN his recent article "Post-war Planning of Defence Services" the author touched on an aspect of defence administration that has received notice many times in India during the interval between the two World Wars.

More senior officers will recollect the many campaigns launched from time to time, at levels varying from District Commands to G. H. Q., aimed at reducing time spent in offices to the benefit of time spent in training; to speed up the issue of decisions in all headquarters by eliminating unnecessary paper work. Except for slight and fugitive gains, little was ever accomplished. Conferences, debates, instructions, etc., ultimately came to little lasting result.

The article in question invites us again to give serious attention to this problem in our post-war planning, and rightfully so. It is profound disagreement with the suggested solution that prompts this article. Recognising that the existing state of affairs has driven defence administration to "Too much centralisation" and that "Decentralisation, with suitable checks, should be the keystone of any future planning," there is propounded a solution in these words "Financial Advisers with wide powers should be attached to all Armies and Commands Finance, Audit and Accounts Officers should be attached to defence units and formations They should have refresher courses at staff colleges"

In short, the shackles that now weigh on the hands of the defence administrative body should be strengthened and be extended to the feet. For who can deny that only few administrative problems have no financial implication, and that it is the arguments concerning these that lead to paper and yet more paper; delay that piles on delay. Concurrence without paper argument is, unfortunately, all too rare.

It is readily conceded that senior officials, whether civil or defence, who are directly in charge of the expenditure of annual budgetary grants should have available to them high level financial advice. But what is not conceded is that throughout the whole chain of defence administration there should be set up a parallel host of financial watch-dogs of different grades, keepers of the purse, who must say yea or nay before most decisions on administration can be reached.

Here lies the main foundation and root of paper in India. It besets the civil administration as well as the defence. It weighs heavier on defence perhaps because defence, absorbing so large a share of the total budget, is provided with a more elaborate and extensive machinery for such control.

It is interesting to speculate why such tight financial control is more necessary in India than in any other Empire country. But that it contributes powerfully to the dreary pace of administration in India, to the sense of frustration that sooner or later overtakes all newcomers to the scene, is not a matter for speculation. Merely the degree of the contribution is open to difference of opinion.

The justification and need for the existing system of financial control over defence expenditure, which the author referred to would have us extend, can be examined:

- (a) In its constitutional aspects.
- (b) On practical grounds.

To take the constitutional aspects first. Constitutionally India is to-day, and presumably will in future remain, a democratic country. The heart and core of democratic government is that Parliament alone can vote supplies (*i.e.* money). The processes are simply stated as follows. The various portions of the Executive (*i.e.* the Departments or Ministries of a Government) once each year lay their claims to money; their claims to their respective shares of the revenues of the country.

Defence, like any other department, each year sets down in terms of money what it hopes or desires to achieve in the succeeding year. In doing this, it may be and probably is compelled to work within a financial limit that the Ministers or Members as a whole decide as that which the country can afford for defence; the insurance that the country can afford. In working within that limit, and in building up the manifold parts of the budget, the administrative heads of defence must carry the Finance Department with them.

There are hundreds of things to be justified—new schemes, new buildings, modern ships, aeroplanes, tanks, weapons, etc., new expansions, new training etc. Much is compromise and much that is old has frequently to be surrendered for the new requirements. And so defence and finance ultimately agree on the contents of the defence budget that is to go to Parliament.

Finally, the Finance Department amalgamate all departmental or Ministerial budgets into the one document that is laid before Parliament. It is at this stage that the chosen representatives of the country say what will and what will not be spent and vote the monies (*i.e.*, supplies) for such purposes.

But democratic government requires something further, something that touches very closely on the main point of financial control under discussion. Following the practice of the Mother of Parliaments, every democratic government requires to be satisfied in arrears that the monies they have voted year by year for specified purposes have in fact been spent on those purposes and on no others.

At the same time Parliament, as is at once obvious and natural, desire to know whether those monies have been spent frugally and economically; that bribery and corruption have not entered into their spending. It is therefore that every free and democratic Parliament (including the Indian Legislatures) follow the practice of Westminster in appointing a considerable number of its members *from both Houses* to sit as a joint committee to examine and interrogate the Executive (*i.e.* the Government Departments or Ministries) as to what they have done with the monies voted by Parliament. This Committee in all Empire countries is known as the Public Accounts Committee.

Now it is clear that the members of that Committee, however qualified, conscientious and industrious, cannot collectively or individually examine the ten thousand and one spending accounts of the different Departments. Some body or machinery must bring the essential facts of spending to the light of day and place them before the Public Accounts Committee. And is this the Finance Department? No, it is the Auditor General: the chief detector of illicit spending, of financial wangles, of financial profligacy, of bribery and of corruption.

This official, beholden to no part of the Executive, not even Finance (in India he is not answerable even to the Viceroy under the existing constitution!) exists to serve Parliament through the Public Accounts Committee and is answerable only to Parliament. Once he has completed his term of office he is debarred by law, by the Constitution Act itself, from holding any further office under the Crown.

It is the Auditor General who, through his annual Audit Report to the Public Accounts Committee, virtually frames a series of charge sheets that the Executive are compelled to answer to that Committee; always in writing and frequently in further oral defence.

Those are the constitutional foundations for obtaining, spending and accounting for money. The constitutional lawyer can split hairs here and there, but it remains the elemental constitutional position. Thus, if each Department or Ministry is directly and itself answerable to Parliament for its spending (the Finance Department or Treasury equally so with any other part of the Executive) why then does finance in India duplicate the authority that Parliament would appear to have arrogated to itself?

The answer may in part be that the Constitution Act also lays on the Crown or His representative the duty of specifying the procedures to be followed by the Executive in carrying out the business of the State, (usually embodied in a book called the Rules of Business). But it can reasonably be assumed that responsibilities would not be vested in one part of the Executive which gave powers over the remaining Executive to the prejudice of the primary rights vesting in Parliament alone. They could only be of a complementary and of an enabling nature. Is it correct to suggest that once Parliament has voted monies for specified purposes then an authority subordinate to Parliament should require further justification?

It is by following these lines of thought that the conclusion is reached that any suggestion for extending the system of watch-dogs and purse-string holders in defence administration is questionably sound constitutional democratic practice. Assistance in spending—yes. Financial advice, with emphasis on the word “advice,” and from a sufficient level backed by the requisite experience—again yes. Advice is the keynote and not veto. Veto should only occur when a proposal is held to infringe the intentions of Parliament or in respect of contemplated further spending when funds are either exhausted or wholly hypothecated.

Despite the belief that the constitutional position has not been read seriously amiss, that there is no mandate for interference to the extent now felt between a Department or a Ministry and Parliament, the constitutional jurist may argue grounds why such interference is permissible. We will turn then to survey the practical arguments for and against so tight and ramified a financial control to see if on these grounds it can be justified; whether it is beneficial to the State.

In the first place there seems something fundamentally wrong in the conception that a reasonably well educated cadre of men such as constitute the Defence Services, whose traditional probity is high, should not be vested with direct responsibility for spending. Surely the resources of the Indian Government in reasonably efficient administrators are not so large that a cadre of some 4,000 officers in peace can remain, in matters of financial judgment and responsibility, so largely unexploited, and that in parallel with them an additional civilian cadre must be placed to keep their conscience for them even to the extent of day-to-day trivialities?

Lest it is pointed out that “financial powers” are delegated to numerous classes of officers let it also be said that they can rarely be exercised alone. Almost always the concurrence of some finance officer is a necessary prelude to their exercise. And even then the permissible sums are very low.

To whatever extent these arguments are valid there is the fact that few will care to deny—the existing system of tight financial control forces a belief on the vast majority of defence officers that in financial matters they are not to be trusted; that the system does not require that they be trusted. Fulminate against so atrocious a belief as you will; argue mightily that the system is designed to foster just that joint sense of financial responsibility. But the opposite is the case. It is worthy of reflection that the vesting of responsibility begets a sense of responsibility.

A second point of practical importance to an impoverished country such as India, shortly to become through independence more defence conscious and more anxious to be self-contained in defence matters than ever in the past, is whether the defence budget can continue to afford to pay the heavy bill that the existing system of tight financial control involves. How few are aware that in the pre-war days the salary bill for the system equalled the cost of 21 Battalions of Indian Infantry against a total strength of 120 such Battalions! The sum involved was nearly Rs. 1½ crores. A heavy price to pay to ensure financial correctitude.

Compare this with the pre-war system followed by a certain continental power with defence forces greater than those of pre-war India. That system, costing the equivalent of less than a Battalion of Infantry, can baldly be stated as follows. Any claim for money signed by an officer and within his powers, (counter-signed by his commanding officer in specified cases), was valid for money and could be cashed at any Treasury, Bank, etc. All these pieces of paper found their way to a small central office, whose task was to bring them to account; to enter up the books.

Attached to that office was a small number of expert highly paid accountants whose sole responsibility it was to examine suspicious cases. When such came to light, all papers signed by the officer in question over a considerable period would be examined and further action determined. In suspicious cases where mala fides were obvious but difficult to prove, the decision was invariably "removal of commission for administrative inefficiency." The officer just had to know his financial rules and regulations. He had no choice.

Let it be stated at once that this system is not advocated for India. It is quoted to illustrate that there are less costly (and swifter) methods of spending and accounting for public monies than that followed for the Defence Services in India. The desirable solution for India, having in mind the need to strike at the paper storm at its principal source, may well lie somewhere between the two systems.

A final point and one that should appeal to the Finance Department, is that if financial responsibility is properly placed in peace, it will return considerable dividends in war. For when war comes the very nature of the emergency forces a decentralisation of responsibility for spending on a wholesale scale, both at home and in the war theatres; with very little real control by financial advisers. Even if available in the numbers required they are naturally hesitant to interfere unduly lest they be accused of "holding up the war." Were defence officers concerned trained and experienced in peace to conduct and to control their own official financial affairs then manifestly they will prove better stewards of the country's money, its first munition of war, when the emergency overtakes them.

Let us now turn to what may perhaps be the primary arguments for no change, even for an extension of the existing system, and face the issues squarely.

It may be claimed, indeed it will almost inevitably be claimed, that the existing system is essential to secure proper spending, to prevent wasteful spending, and to prevent bribery and corruption. Perhaps sufficient has been said to support the contention that no serious fears need be apprehended in respect of the two functions of spending if responsibility for spending is placed fairly and squarely on defence officers.

At higher levels senior defence officers, each having already justified to the Finance Department what went into his portion of the Defence budget—(even under existing practice all “Directors” of G. H. Q. have their separate portions of the defence budget and are each severally responsible for them, responsible that they are not overspent etc.)—is thoroughly alive not merely to the limit of the money he can spend but on what he has to spend it in order to fulfil the policy of the Commander-in-Chief. Those facts were tentatively asserted in the draft budget that went to Parliament with the concurrence of the Finance Department and later were confirmed or amended by Parliament. His course is clear. It is for him to see to it that both he and all his subordinates down the chain of his command get the best out of the money that has been made available.

A new sense of responsibility would vest in defence administration and the Finance Department would cease to be regarded as a miserly caretaker of inexhaustible hoards. Financial advice would always be desirable, and sometimes necessary, on both border-line cases or in respect of new circumstances or conditions that have arisen. In respect of the latter a typical case might be the need to re-equip certain squadrons with new and perhaps revolutionary aircraft which should not await the next budget and whether, and if so to what extent, savings could be made or be anticipated to meet the new requirements or, in cases not susceptible of such solution, whether Parliament should be approached for a supplementary grant.

All this would involve and require a radically different outlook on budget control by the senior administrative officers concerned. The machinery that watches and checks such expenditure to-day would need to come under their control. It is they who would exercise financial control over their subordinates throughout the defence machinery. For the rest, the machinery of the Auditor-General would be at work. But it would be necessary to place the emphasis on “concurrent” audit as distinct from normal “post” audit.

Touching on the question of bribery and corruption there is temptation to wonder whether, had the existing system been otherwise in the pre-war days, there could have been embezzled each year anything approaching the Rs. 1½ crores that the system cost at that time. On somewhat safer ground one may speculate, idly perhaps, on the extent to which it is the duty of a Parliament to provide machinery designed to keep its Executive honest. Parliament does what it can in this matter by safeguarding the methods of selection for entry to the State service. After that, surely its officers are innocent until they are individually proven guilty?

But Parliament must of course satisfy itself, as through its Public Accounts Committee it does, that the corrupt are traced and are brought to justice. To weed out corruption would appear, on constitutional grounds, to be the concern of the Auditor-General operating through concurrent audit methods, and by equipping himself with machinery of a C. I. D. nature to follow up suspicious cases.

Thus the conclusion is reached that the chief and substantial method of freeing defence administration from the enervating and deadening effects of its existing delays, and its excess of paper, lies not in maintaining or extending the existing and already costly financial control over defence expenditure, but of introducing drastic changes calculated to harness the experience and ability of defence officers themselves to a responsibility that is constitutionally theirs ; for which they, as the Executive concerned, are individually and collectively answerable to Parliament for its proper discharge.

The financial veto should give way to financial advice. To the increase to the efficiency of the defence officer that must inevitably grow must be added two self-evident advantages : more of the slender funds for defence could go directly into the measure of defence insurance that India decides she can afford to pay, and a revolutionary change would overtake all defence administration—more speedy decisions accompanied by a summary curtailment of the spate of paper that to-day deluges every defence office from the highest to the lowest.

But whilst arraigning the present system of financial control as the chief culprit, there are others. Collectively they are of minor account compared with that named. One worthy of mention, as a tangible means of saving office time and paper, is a simplification of systems and methods ; forms and returns. Right up to the outbreak of war everyone dealing with animals had to send returns to A. G., M. S., D. S. T., Remounts, Veterinary and perhaps others ; each in a different form and at different periodical dates.

We should take counsel of the late Lord Stamp, perhaps the greatest authority that existed on office organisation in large offices of great complexity. Paraphrasing his observations from memory he said that where papers dive out of and into a multitude of offices only an outsider can see what should be done, and that outsider must be one who can see old-established and customary things with a new eye as if they were strange. The defence services need a roving office efficiency expert. Just one—but he must be good.

It is these reforms that are wanted, but above all the reformation of the financial control system. Within the annual supplies (i.e., monies) made available, financial adviser (but not veto) should be available at the top. Below that level, financial control and financial safeguards should be assumed, as in any business organization, by the defence administration itself, and should not be imposed by an alien body. This is the pre-requisite of decentralisation ; the decentralisation that “with suitable checks should be the keystone of any future planning.” When that comes Whitehall may perhaps cease to believe that the climate is responsible for the inertia that pervades all Indian administration, including defence.

The views expressed in this Journal are in no sense official, and the opinions of contributors in their published articles are not necessarily those of the Council of the Institution.

THE RED ARMY—FOUNDATIONS OF STRENGTH

BY LIEUT.-COLONEL G. H. NASH, O.B.E.

LESS than fifteen years ago the Soviet Union was not strong enough to protect its interests. In 1931-32, weakened by the crisis of collectivization, it had to accept the loss of the Chinese Eastern Railway and the military problem of a new land frontier with Japan 1,500 miles long. In 1935, cutting its losses, it sold its rights in the C.E.R. for a paltry sum to Japan. Not until 1938 (the second five-year plan had been completed and the third begun) was there any outward sign of growing military strength; in that year and the next the Red Army fought a series of engagements in Outer Mongolia and Manchuria. Retreat was at an end.

The Red Army of to-day needs no introduction, but to what does this mighty war machine of perhaps some four hundred divisions owe its strength?

Heritage.—Richard Chancellor, an English merchant-adventurer, discovered Russia for the English in 1553 and this is what he wrote of the Russian soldier:

“I beleeeve that they bee such men for hard living as are not under the sun: for no cold will hurt them. Yea and though they lie in the field two moneths, at such time as it shall freeze more than a yard thicke, the common soldier hath neither tent nor anything else over his head.... I pray you amongst all our boasting warriors how many should we find to endure the field with them one moneth.”

Down through the centuries the Russian soldier has proved himself to be a magnificent fighter. Ill-provided for and poorly equipped, still he has been more than a match for the armies of yesterday, and both Frederick the Great and Napoleon had good reason to respect him. Napoleon's Armies met him not only in Russia, but also as far afield as Italy and Switzerland, and time and again it was the stubbornness of the Russian soldier which made up for the frequent defects of provision and of command. What he can do when these defects are removed, we have seen in this war.

MEN, MONEY AND MACHINES

In 1939, in what must have been a last desperate effort to hold the invaders, massed Polish cavalry charged formations of German tanks and were mowed down in thousands. We all agree that valour alone cannot win modern wars and that, amongst many other things, an army today requires machines and man-power.

On October 1, 1928, Russia went to war—not a war of bombs and guns certainly, yet a war which made high demands upon the people, which called for heavy sacrifice and devotion to duty and which was accompanied by considerable loss of life. Men and women suffered the privations of war—they subsisted on a bare minimum of food, they lived in overcrowded rooms and hovels, and often they were wretchedly clothed. This was a great planned offensive, boldly conceived, ruthlessly executed, and having as its object the achievement of industrial independence for a country which had hitherto been almost entirely dependent upon the outside world for machinery and armaments.

On October 1, 1928, the first five-year plan was inaugurated, and in five years steel furnaces, hydro-electric schemes, tractor plants, motor-car factories and every other conceivable form of heavy industrial undertaking, sprung up like mushrooms. The first five-year plan was followed by a second, and it was in 1938 that no less an authority than the late Corporal Shickelgruber claimed for Russia the strongest army, the strongest tank force and the strongest air force in the world.

In 1938 yet a third five-year plan was begun and in it defence was writ large. Already in 1937 over one-fifth of the national revenue had been allocated to defence, and if we try to answer the vexed question of the real value of the rouble by working on the lowest estimate available, then in terms of pounds sterling the Soviet Union spent in that year of uneasy peace, not less than £100 million on its fighting forces. If one accepts the official rate of exchange in London, then it was well over £200 million.

But God is on the side of the big battalions—where was to-day's and to-morrow's man-power to come from? One might say at once that Russian man-power is inexhaustable; in comparison with many other countries it is, yet fighting a major war on one front only, meant denuding industry and the public services of every single man whose place could be taken by a woman. In addition, a large number of women served and fought as pilots in the Red Air Force, whilst others serving with the ground forces distinguished themselves as snipers and ambulance personnel.

Until well into the nineteen-thirties what one attractive young Slav very aptly described as "living in wild marriage" was the rule rather than the exception, and although a law passed in 1927 laid some emphasis on the maintenance of children in the event of divorce, there were no restrictions on abortion. In 1935, however, the Soviet Government brought the fall in the birth rate to an abrupt end. The family was extolled—in fact the propaganda campaign which preceded legislation began by Stalin visiting his mother. And the Government having passed laws which prohibited abortion (except to save the mother), controlled divorce and taxed childless citizens, the State Planning Commission announced that the U.S.S.R. was to have a population of 300 million by 1975!

In August 1944, a generous scale of monthly allowances and lump-sum awards for both married and unmarried mothers was announced in the Soviet Press, and the title and orders of "The Heroic Mother" and "Maternal Glory" were instituted for mothers of large families, together with medals for the less prolific. No one is going to suffer financially for having a large family—in fact the U.S.S.R. may have the best part of the Planning Commissions' 300 million by 1975. What are they going to do with them?

"*Moral is to physical as three is to one.*"—Nothing of moral value has ever been neglected by the Red Army. We have our welfare, a cheery newspaper with a glamour girl or two, the personality of our commanders, the visits of our generals to their forward troops, the knowledge of massive fire support in the attack, the explanation of the plan to our troops, special orders of the day, unit tradition, smartness, personal leadership, rum and last but not always least, a hot meal and a large mug of tea. All well suited to the British temperament.

Moral planning in the Red Army is set at a much higher pitch—intense hatred of the enemy; dying heroically for the Fatherland; mass patriotic fervour such as we have not known since the Victorian age; the fame of heroes; published letters from mothers urging their sons to avenge the death of fallen

brothers; colours carried into battle. In one word, *Glory*. And how is this attitude of mind cultivated and sustained?

THE DRIVING FORCE—CO-ORDINATED EFFORT

One can produce dozens of informative pamphlets and army newspapers—in fact, looking into a Unit Information Room in India one is convinced that we have done—but their influence can only be felt if they are read (or read out), explained and discussed, and secondly, they can only have full effect if they are part of a co-ordinated propaganda offensive designed with a particular object.

For three years the aim of propaganda in the Red Army has been clear and consistent. It had one object: the raising of the fighting spirit of the Red Army to the highest possible level of collective and individual self-sacrifice and one might almost say “to a fanatical pitch.” The war in Europe having ended, the propaganda theme will change a little, in fact new emphasis to an old theme is already discernable—although one cannot claim that it is the whole theme, or even half of it: it is “The honour and dignity of the Soviet warrior.” To this we must undoubtedly add “The unity of the Army, the People and the Party.”

And how is the co-ordinated propaganda offensive put across?

In each formation, unit and sub-unit of the Red Army there is an officer or N.C.O. responsible for propaganda and welfare. In the regiment (three battalions) he is a senior lieutenant (there are three grades of subaltern rank in the Red Army); in the battalion a Lieutenant and in the company probably a sergeant. But none of these men are working alone; directly or indirectly they are each directing the efforts of all Party Members—i.e., the Party Organization—in their unit or sub-unit, and in their work they are assisted by the company, Battalion, etc., 2nd-in-Command.

Red Star describes the Regimental Propagandist as the “basic central figure of our propaganda amongst the men, the N.C.Os. and the Officers,” and adds that he must have a calling for his work. His activities are well worth recording, although within the limits of this article they can only be dealt with in barest outline:

If the unit is training, he goes round parades and siezes any suitable opportunity to chat with the men. Off parade he organizes the reading aloud of newspapers and ensures that the latest press communiques reach the men. Choosing the best material from the Party men of his unit he appoints “working” members in companies and platoons and directs their activities. He lectures to the men. Here are some lecture themes: “Let us add to the glory and tradition of our regiment,” “Our cause is just,” “The might of Soviet Arms.”

In battle he is expected to be in the thick of the fight and after battle, amongst a hundred and one other things he writes letters of congratulation, in the name of his C.O., to each man who has distinguished himself. During the war in Europe the most energetic measures were taken to ensure that all ranks were kept constantly informed of the progress of operations; communiques were taken down from broadcasts, cyclostyled and issued down to platoons.

As every individual is far more interested in himself and his own unit than in someone fighting a battle a thousand miles away, the propagandist kept a note book in which was recorded any stirring incident involving either an individual or group of individuals in the unit, and later this formed the basis either of a lecture or of material for the regimental newspaper. But apart from newspapers the regimental propagandist issued “lightning leaflets” giving immediate publicity to acts of courage and daring.

As long as the war in Europe lasted, even the fact that a unit was on the march was no excuse for relaxation in propaganda; the propagandist halted in a truck, jotted down the latest important broadcast news and often not even waiting for routine halts, he stood by the side of the road and greeted the approaching columns with a "Congratulations! The Red Army has captured" But the propaganda did not end with passing on wireless communiques: halting in the ruins of a recaptured village one of the liberated inhabitants—generally a woman—would be invited to tell the troops what frightfulness she suffered at the hands of the hated invader; a large amount of abandoned enemy equipment on the road would be seized as an indirect example of Soviet might, whilst a body bearing signs of torture or ill-treatment would be displayed before the men and they would be asked to avenge this inhumanity.

Finally Stalin, the State and the Party are never omitted, and the approach to any form of propaganda is a Party approach—for example, a mutilated body may be used as an example to stress the wisdom of Marshal Stalin's order to "finish off the Fascist beast in its own den."

Such is a very sketchy account of *some* of the propagandist's activities; he also deals with a wide range of welfare problems—including, sometimes, the patching up of broken romances!

"*The Press is the sharpest and greatest weapon of the Party*"—Stalin. To give the Soviet Press in general and the Red Army Press in particular, its full significance, one cannot do better than quote from a recent leading article in *Red Star*:

"The Press, to quote the words of Comrade Stalin, is the sharpest and strongest weapon of our party. During the war for the Fatherland this weapon played a great role in the heroic struggle with the German invaders and the achievement of our sacred aim—Victory. The Press, with skill and energy gave the widest publicity to Comrade Stalin's instructions, brought to each soldier the appeals of the Bolshevik Party, and again and again explained the high and noble aims of the war for the Fatherland. The front line Press was a most important factor in the invincible stubbornness of our defence and the crushing weight of our offensive. In the fire of battle many of our Red Army newspapers acquired military glory, and through them the voice of the Party gave new strength to our armies"

The Red Army has over 150 newspapers. There are newspapers for particular fronts, newspapers for armies and newspapers for divisions, and these do not include the more modest cyclostyled news-sheets in units. The language problem is no less serious than in the Indian Army, and some 56 of these Red Army newspapers are printed in languages other than Russian.

FOREBODINGS—A DIGRESSION.

One might naturally conclude that Red Army personnel are the most well informed of any army in the world, and with regard to the great achievements of their Government this must be so; but there is another side to the picture, a side which bodes ill for the friendship foreshadowed in the Anglo-Russian alliance: except for occasional articles (for example when we crossed the Rhine) the Red Army is told little about the achievements of our own forces; in fact most copies of *Red Star* (which is described as "the central organ of the Peoples Commissariat of Defence") convey the impression that the Red Army fought the war virtually unaided.

Picking out six copies of *Red Star* at random (April) one finds that news of the British and American forces averages a bare fifty lines a day in a small back page column. In fact, about us the Russian soldier is most ill-informed and the suspicion born of ignorance is now likely to be further aggravated by the publicity recently given in the Soviet Press to criticisms of our treatment of Russians who were previously prisoners of war in German hands. The Russian people, though naturally very friendly, are not in fact allowed to get to know us—nor we them.

GLORY.

Somewhere near the beginning of this article it was claimed that nothing of moral value was ever neglected by the Red Army. The Press and the unit propagandists have been touched upon, and the time has now come to note certain customs of the service which have definite moral value. Some of these customs are universal, others may become so through the publicity which they have received.

For hundreds of years Russian Troops and their Commanders have greeted each other on parade. Before the Revolution if the troops had earned praise, the commander said "Bravo my children!" the response to which was "*Rad stasatsa vashe 'stvo!*" (We are glad to try your noble-ness, or your excellency.) Today the response to praise is "We serve the Soviet People" and an inspecting general who, on approaching a unit greets the men, receives the response "We wish you health, Comrade General!"

Strange though they seem when translated, these responses undoubtedly create a sense of unity and strength such as we feel when on rare occasions we cheer our King, our Commander-in-Chief or our Divisional Commander.

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"We serve the Soviet People!"—the Army is constantly identified with the People, and the recruit does not merely march to the Armoury, queue up and draw his rifle or Tommy Gun. The issue of arms is made the occasion for a small ceremony. The recipient is reminded of the heroic efforts of parents, brothers and sisters who toil unceasingly in the factories in order to arm him, equip him and supply him with ammunition. This weapon, he is told, symbolizes their patriotic efforts and he must cherish it and care for it and with it dedicate himself to the defence of the Fatherland. During the European War it was a common custom to keep a running total of the number of enemy killed by a particular rifle or Tommy Gun, this figure being passed on to the new owner if a man was killed or wounded.

The Red Army—particularly since 1941—has been quick to realize the value of tradition, and so we find the history of various regiments diligently traced back a hundred years or more. And what could better symbolize the honour and traditions of a regiment than the Regimental colour? Obviously the Regimental colour is a moral factor, a means of raising morale, a source of inspiration, a call to Glory; and so in the Red Army the Regimental colour accompanies a unit when they go on service. Its position in battle is of particular interest, for it is chosen purely from the point of view of influence upon morale. At the beginning of a battle the colour remains, cased or uncased, at unit battle-headquarters, and only when the battle reaches its critical stage—perhaps when the result of the operation hangs in the balance—is it carried forward into the thick of the fight. To take a recent example—

A regiment held a position in low marshy ground which was overlooked by a hill upon which the enemy were well dug in. On the low ground below, any trenches dug filled immediately with water. The autumn rains had begun; everyone was cold and drenched to the skin. The marsh was not everywhere passable and the Germans, who had ample time to study the position, had covered all approaches with fire. But the hill had to be taken.

For a whole day the battle swayed backwards and forwards, and not until the morning of the second day the regiment, under cover of the thick early morning mist, succeeded in seizing the lower slopes of the hill and digging in on them. The mist was lifting, the volume of fire directed against their precarious hold on the lower slopes steadily increased in intensity. To stay where they were meant eventual annihilation; to go back meant surrendering the costly gains of two days' fierce fighting. This was the critical moment in the battle, the moment when some bold stroke, some valiant appeal, might bless the wavering fortunes of the sorely tried attackers with victory.

Dramatically through the last faint wisps of morning mist came the Regimental Colour—down it went for a moment but eager hands caught it and carried it on. Above the din of the battle could be heard the cheering of the men, cries of "Advance!", more cheering, and then the irresistible surge forward of hundreds of newly inspired warriors. In that mad carnage the Regimental Colour suddenly appeared at the top of the battle-scarred hill—firmly implanted, a splash of valiant colour against the angry sky. The hill was won.

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Occasionally special honour is accorded to the wounded, and cases have been reported where C.Os. have marched their units "to attention" and paid compliments to the wounded lying around a dressing station. "We will avenge you!" is the keynote of these impromptu march-pasts and of the publicity which they receive in the Red Army Press. The wounded are honoured by them and they can well be regarded as a moral factor in strengthening the fighting spirit of the fit.

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No Army has been quicker than our own to realize the moral value of letters, but the Red Army, backed by the full force of a totalitarian administration goes a step further—no soldier at the front may be without letters. If he has no one to write to him, well, some one must be found—and someone is found! Usually as a result of an appeal made over the wireless. -

The other interesting point about letters is the frequency with which they are either broadcast or published in newspapers. Such letters are chosen for the patriotic sentiments they contain, but as they are personal they make far greater appeal than an impersonal article on one's duty as a soldier.

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This picture of the path of Glory is undoubtedly incomplete—medals and orders alone would make a Chapter in themselves, whilst at least one chapter should be devoted to tradition—but if it contains sufficient examples to show that nothing of potential moral value is neglected, then it will have served its purposes. But there is still something to be added—

DISCIPLINE.

Except for a short lapse during the revolutionary period discipline in the Russian Army has since time immemorial been very strict, and no less a traditional hero of the Red Army than Field Marshal Suvorov (1730-1800) demanded the sternest discipline, insisting that "Negligence must never be allowed to pass without punishment," the punishment, even in the case of this intelligent and much-beloved leader, often being "a few little lashes." The lash has gone, but a stern discipline remains—in fact a combination of iron Party discipline and military discipline pure and simple, is the corner stone in the Red Army edifice.

In a public conveyance, be it bus or tram, the soldier may not sit in the presence of an officer. The soldier may not carry anything in his right hand, which must always be free for saluting. And as for appearance—well, a soldier on leave is not allowed off his terminus station at Moscow until his turn-out is perfect, and if necessary he must wait there until his uniform has been pressed! These are the outward signs of a well-disciplined army, but there is another sterner side: the loss of a weapon may mean a sentence of death for its owner, whilst conduct which might cast a slur upon the Army is dealt with with equal severity.

But if the Red Army have never forgotten Suvorov's views on discipline, they have also never forgotten something else which he handed down to them:

"The morale of the troops plays a pre-eminent part in war. The main weapon is man. Commanders shall devote great care to the soldier and his needssubordination, exercise, discipline, cleanliness, health, neatness, alertness, daring, courage, victory, glory, glory, glory!"

AN UNUSUAL AIR ROUTE

"One of the most romantic air routes of the war was operated by B.O.A.C. between Leuchars (Fife) and Stockholm. From 1941 the 800-mile crossing was made on 1,200 occasions, 490 of them during 1944. The flight lay over more than 250 miles of heavy enemy defences, and in this area many of our aircraft disappeared without a trace. In a tribute to the pilots the Air Council referred to these 'unarmed aircraft which ran the gauntlet—not without grievous loss—of a very determined foe.'

"The principal freight carried consisted of special steel for instruments. Ball bearings for aero engines were also among its valuable cargoes. After the air raids on the principal German ballbearing factories at Weinfurt, the Allies had reason to suspect that the enemy would immediately go to Sweden to try and safeguard these vital supplies. To forestall him, Britain sent over two experts by two fast, but unarmed, Mosquito bombers. The passengers were carried in the bomb bays, and the mission proved most profitable."—*Daily Telegraph*.

THE SEPOY OVERSEAS—AND AT HOME

By "CHARLES."

HOW is the Indian soldier regarded by his comrades-in-arms in the C. M. F. and M. E. F. theatres of war? Let me say at once that he has earned and built up a great reputation, and is held in high esteem by British, Colonial and U. S. A. troops with whom he has served and fought. All were full of his praise, and were out to do their best for his welfare. With few exceptions the Indian soldier's conduct has been exemplary, with the minimum of crime. In incidence of preventable diseases, such as malaria and V. D., always a measure of unit discipline, he has shown the lowest admission rate of all nationalities serving.

In the sphere of amenities, buildings, furnishings and equipment in places like Italy, Greece and Egypt the Indian soldier is well looked after. The absence of suitable buildings in Iraq and Persian camps has been a distinct handicap, but though in these theatres they are a little behindhand with their construction programme, they expect to complete their hutted accommodation within the next few months. Meantime, tents and "*Wana*," hut improvisations are meeting the deficiencies, and zeal for the welfare of the Indian rank and file has nowhere been lacking.

The British Service has its own complete Welfare Organisation, with British Officer, W.O., N.C.O. and self-contained N. A. A. F. I. establishment capable of meeting all the requirements and amusements of the British soldier, and independent of other Services in the Army. The Indian Service suffers in not possessing a Welfare establishment and N. A. A. F. I. organisation, and its dependence on personnel from units, 2nd Echelon and Indian Y. M. C. A. representatives for the management of Indian soldiers' clubs, canteens, rest centres, etc., is a distinct disadvantage.

On occupation of a town or area the British Welfare and N. A. A. F. I. representatives parade before the Town Major or similar recognised official, and are allotted the building or site where they immediately establish their British soldiers' club or canteen. The Indian Y. M. C. A. manager usually arrives well in the wake of the advancing army, and is allotted what is left. He does not open an Indian soldiers' club until a building has been completed in all its alterations and repairs by an already overworked R. E. establishment.

Laudable as the efforts of the Indian Y. M. C. A. manager may be, he can, with few exceptions, only cater for the wants of the havildar-clerk, store-keeper or M. E. S. overseer. He has not cultivated the natural sympathy and camaraderie for the *sowar*, the *sipahi*, or *jawan* of the Indian Army as we know it. Moreover, the Indian Y. M. C. A. manager, usually an Indian Christian, has limited powers of command to exercise any discipline of ordinary cleanliness and sanitation among the Indian establishment detailed for him from local units or 2nd Echelon.

Another point worthy of mention is that the British Serviceman, in addition to having his welfare organisation Club, also has T. O. H., Y. M. C. A. and other recreational centres provided as supplementary to the Army Centre. In each of these one or two British women were working, several as volunteers, adding the characteristic feminine touch and homely thought with decorations,

pictures or flowers, arrangements of books and other reading matter, the provision of a local seamstress and sewing machine to repair clothing, etc., thus making these places more inviting and pleasant. The Indian soldier has none of these yet. The three Indian Lady Welfare workers appointed by the Army at Cairo, Beirut and Jerusalem are only functioning in their official capacity, and cannot be said to have made real contacts with the *jawns*.

Holiday camps have been established for the Indian soldier, as for his British comrades. But the tastes of the former are difficult to cater for. He does not wish to sea-or sun-bathe, or idle under the shade in pleasant surroundings, or try to catch a fish or play improvised games on a beach. He has never been to a seaside or country for a holiday; he has always lived in the country, and in his unit has played games to order. The Indian wants to be near, or in, a town or city where he can wander in its streets and look at its shops. He would rather be in Cairo or Baghdad, walking through its streets in summer temperature (even if some of its localities are "out of bounds") than enjoy a restful holiday in the cool and among the amenities provided at Karind. The Indian and the Indian E. C. O. of so-called higher education has to learn to enjoy a quiet restful holiday in the country and appreciate the benefits and amenities provided by Nature.

For an officer who knew the pre-1914 *jawan*, it was interesting to see the 1944-45 edition using the Indian Soldiers' Club amenities provided. A fair proportion had learnt to make full use of them and appeared quite sophisticated; others appeared a bit shy of the chairs, tables and table-cloths, etc., but were rapidly adapting themselves with surprising efficiency. At a Soldiers' Club in Italy two Gurkha riflemen, seated on a stool before an upright piano, were successfully making music, playing a duet with one index finger each. Here was a strange musical instrument midst strange surroundings, but the two were really enjoying their success at evolving one of their tunes by ear from memory. How many B. O. Rs. could play "God Save the King" or "Tipperary" under similar conditions?

Literature is provided fairly liberally by the Army, and the Indian gets the latest news from the wireless. Cairo publishes a local edition of the *Fauji Akhbar*, which is delivered to remote parts fairly expeditiously, but many feel that, if literacy is to be further encouraged, a Roman-Urdu daily paper on the lines of *Union Jack* or *Seac* for Indian troops would be much appreciated. Similarly, if interest in local sightseeing places is to be stimulated among Indian ranks, some simple guide booklets, printed in Roman-Urdu, would be useful for places like Cairo, Rome, Florence, Athens or Jerusalem, where the Indian soldier has had the good fortune to sojourn.

In furnishing and decorating Indian Soldiers' Clubs or Recreation Rooms a guiding and restraining influence is essential. The common practice of plastering the walls with pictures and information posters, many of them repeated several times on the same wall, prevailed. In one club in Italy, the ante-room and reading-room walls were completely covered with posters and pictures; the dining-room had some panels of Indian characters rather well painted by a local artist, but one picture of a bird, left over spare from the front rooms, was plastered over the left-hand bottom corner of one of the panels!

The Indian soldier has done well in rations, as far as operational conditions permitted, but sufficient interest in his feeding did not seem to me to be exercised

by his officers; nor were many attempts made to overcome prejudices by instruction and personality to which, if properly imparted, the Indian has always been amenable. One commanding officer, who complained that his men were not getting meat, when informed that a neighbouring unit were getting mutton, remarked: "Oh! yes, but our men only eat goats; they never eat sheep"—as if that were a proud regimental tradition which must be encouraged! Another unit refused to accept a fresh fish ration because they had never seen fish of that peculiar shape before; neither had the writer, but when the identical fish was served up fried for lunch in the Officers' Mess it was excellent eating, although of unrecognisable anatomy.

In one leave centre rest-camp, excellent cooking ranges with boiler and chimney had been provided by the sappers for both Mohammadan and Hindu kitchens, but they had been left severely alone. Both Mohammadan and Hindu cooks had been allowed to make and cook on *choolas* in the rooms; kitchens and dining-rooms were full of smoke, and a sapper-corporal was busy directing a local workman to cut a hole through the roof to let the smoke out. The officer in charge of the rest Camp had not considered sending the cooks to a neighbouring Indian unit, where similar cooking ranges were being correctly used, for instruction.

Several units had heard of the system of serving three meals per day adopted in the North-Western Army and recommended by the Commander-in-Chief in India, but few had adopted the system. The I. A. C. Training and Reinforcement Centre were notable exceptions. They had adopted the system wholeheartedly and their men had derived considerable benefit from it and had appreciated it. One Indian Cavalry Regiment had also done so, and had found similar results, but the commanding officer of the neighbouring unit had been over-persuaded by his R. M. and had found the practice unworkable. Most unit C. O.s were sure their men were able to consume their full rations daily in two meals but the number of volunteer Italian, Arab and Egyptian assistants one saw at Indian kitchens led one to accept these statements with a certain amount of suspicion.

I found general criticism of the Indian F. D. S. entertainment parties. True, the Army expends adequate funds but they would appear to swell the profits of the middleman or contractor, as so often happens with all other Indian commodities for troops if sufficient supervision and control is not exercised. Amateur talent among the large numbers now recruited in the ancillary services was quite good and some excellent local travelling concert parties had been organised in Paiforce and were giving excellent performances.

The Indian Serviceman—be he soldier, sailor or airman—is not looked upon as his fellow-countryman by the Indian civilian or by the commercial world. The moment a man enlists in one of the Services, he ceases to be regarded as a citizen of the country, and is fair game. War, after all, is an opportunity which only occurs on a large enough scale once in twenty years for the contractor and the get-rich-quick fraternity. The latter can always ease their conscience, perhaps even earn a local honour, by subscribing a share of the profits to the Viceroy's War Purposes or other Funds.

In hospitals the sick or wounded Indian soldier receives the best treatment available, whether he is admitted to an Indian, British or Colonial Medical unit. He is efficiently and carefully nursed by Q. A., V. A. D. or South-African

sisters in C. C. Ss. or General Hospitals, with all other races of the Empire, and there have been no difficulties about feeding, etc. It was, moreover, pleasing to note that the Indian E. C. O., R. M. O. and M. O. Field Ambulances, with few exceptions, had made good and earned the respect of the units among whom they worked. Whether Madrassis, Bengalis or Punjabis, they had developed a sympathy and fellow-feeling for their countrymen comrades-in-arms and were anxious for their welfare. Several had deservedly earned decorations in the field for gallantry.

In hospitals, however, the specialists appeared disappointed because the soldiery were not providing seriously sick or wounded in sufficient numbers to exercise their skill and add to their experiences in their profession! In most hospitals I visited, the majority of the Nursing Sisters were British, because sufficient I. M. N. S. or A. N. S. were not forthcoming. Where I. M. S. A. or A. N. S. were working, they were doing excellent work, following the examples and standards of their British *confreres*.

What are the lessons we can learn from these gleanings? What can we do to improve conditions for the Indian Serviceman who has stood the test and proved himself worthy in every field? The Indian soldier has always been a mercenary (as is every profession). Soldiering is an honoured profession. By his deeds and services the soldier has proved himself worthy of his wage—inadequate as it has been at times. What is the Indian Legislature going to do in appreciation of these services, ungrudgingly rendered?

First, we must have a properly organised Indian Army Welfare Service, with its own establishment of officers, N.C.O.s and men, including trained cooks, etc.

Secondly, we must have an Indian N. A. A. F. I. service as part of our Fighting Services. The Indian contractor may be said to supply requirements, according to certain high touring officers who have visited this country recently, but it must be admitted that they are not too familiar with the customs of the country and its fraternity. The contractor is not there solely for the benefit of the troops as an Army-Navy and Air Force-run organisation is. The N. A. A. F. I. at Home has already returned more than £2,000,000 to the funds of British units and their profits will be available for the benefit of the British armed forces after the war. The Indian contractor may send a monthly rebate to the unit but it is doubtful if even the Income-tax authorities have an accurate estimate of the extent of profit he is making from troops in India.

Thirdly, we must improve education among the troops in its widest sense and not merely confine it to book learning and to the passing of examination tests. After the last war the Army started schools at Dehra Dun, Jhelum, Jullundur and Ajmer for sons of soldiers. We must want the existing schools enlarged and more such institutions built in other areas from which the fighting Services are now recruited—and these schools should include the sons of Indian sailors and airmen. The Fighting Services must be a brotherhood.

Fourthly, we want garrison schools for the children of Indian fighting men in all garrison towns where families are allowed. The standard of instruction imparted at these must be accepted and recognised by the civil educational authorities of the Presidencies and Provinces, so that the education

of these children is not interfered with when they return to their village or home town with their parents, as is necessitated by the limited family accommodation available in unit lines.

Fifthly, we must have schools on the lines of Dehra Dun, Jhelum, Jullundur and Ajmer for the daughters of India's fighting men, where Indian parents can entrust their daughters to live away from their homes, develop self-reliance, imbibe the traditions of their fathers, brothers or uncles, and, we hope, provide the future candidates for the Women's Services. Those Services have proved essential in the Forces, but they are hard to recruit from among the products of local mission schools and the domiciled community.

We cannot hope to have schools throughout the length and breadth of India, but do let us start with at least one well-endowed Institution on the lines of similar schools at Bath and Hampstead as a memorial for this War. It must not be a "cheap" Institution to suit the limited financial means of Indian parents. The highest standard must be aimed at from the start. The complete staff, of the highest class, will have to be imported from teaching institutions and universities in the United Kingdom for the present, as such are not yet available in this country.

One or more Studentships should be endowed by Corps, Regiments, Battalions and units of the present Indian Army, so as to perpetuate the memories of all. The Corps or Unit endowing Studentships may be allowed the privilege of selecting and nominating the candidates from among the daughters of their unit, so long as such students conform to conditions required by the Institution, and providing the financial circumstances of the parents have been thoroughly investigated, and that the latter are made to pay a share towards the education of their daughter.

The Punjab and Rajputana States, who provide so many recruits for the Fighting Forces, might be induced to co-operate financially, and be entitled to nominate their candidates under the same conditions as those from the rest of India.

The education provided must not be confined to academic requirements of local school certificates and universities, but must include domestic sciences and such knowledge as will make a girl a worthy citizen of this country, and the future mother or sister of its warriors, or members of its Women's Services. The minimum cost of each studentship should be at least Rs. 250 per month, to include board and instruction. A school for about 200 girls should be started near Dehra Dun or in the Simla Hills as a beginning.

Sixthly, by propaganda and talks we must educate the parents in the Forces to appreciate the value of the educational institutions suggested, and persuade them to take full advantage of the facilities provided for their sons and daughters.

Lastly, we must look to the members of the Legislature, who will soon rule this country, to appreciate fully the fact that the Indian who volunteers to serve in the Forces still retains his right to citizenship of the country. And I venture to suggest that those leaders of the country have a duty and responsibility to look after the welfare of their men in the Forces, and of their families, before, during and after their period of service.

Our Chief, who has the welfare of the Indian soldier so much at heart, has just returned from the C. M. F. and M. E. F. He will, I hope, endorse all I have written, and, with the force of his personality and influence, lead the thoughts of others along these lines, so that the future India Fighting Services will rest on sound and well-laid foundations, and be worthy of the greatness of this country.

Leadership.—"Phlegm, a supreme imperturbability in the face of death—which half amuses men and half dominates them—is the ultimate gift in war . . . General Smuts collects his facts like a man of science, listening, sifting, rejecting what has not been proved; I know no other soldier who has this approach to evidence.

The durability of a general depends more on character than capacity. We may doubt the pre-eminence of Foch, Haig, Jellicoe and Trenchard in their art, but as men they came from the old mould of their race; they wore well, were built for great occasions. Foch's will to victory was perhaps his most valuable contribution to our cause.

"During the second battle in the air in August, 1940, a Minister asked where the reserves were. There were none, he was told; the last war 'plane was in the sky. To send aeroplanes and pilots round the Cape to Egypt at such a juncture was a revelation of will power as impressive as anything in the last War. No other English Government since the last War would have taken such a risk. No statesman save Churchill, with the possible exception of Balfour, would have asked it to do so; the decision bore the stamp of a great war minister.

The art of selection is the art of leadership. Without this power of devolution staleness seizes upon the harassed leader. In general men given great responsibility work too hard. Gandhi's weekly day of silence for thought and prayer is an example to all Englishmen who hold power. Gandhi found he was 'losing mental freshness, spiritual power, and was in danger of becoming formal, mechanical and devitalized. The prescription might have been written for any senior civil servant. Men of good will saddled with the fate of others need great caution to be idle when only rest can restore their fuddled wits."—Lord Moran, President of the Royal Society of Physicians, in "League and the War."

THE P.O.W.s. FLY HOME*

By MACDONALD HASTINGS.

MEN who have been pining, waiting, stagnating behind rusted barbed wire of the German prison cages are coming home. What is happening on the air route between the forward area of Germany and Southern England is something which I can only compare with Dunkirk. It isn't a Dunkirk, because this is a story of victory, not of retreat. But the emotional impact is the same. There is the same picture of thousands of ragged and exhausted men struggling home. There is the same lump in the throat welcome; the same mad improvisation of transport.

But this time it is not a fleet of little ships bringing the men home. It's a fleet of aircraft. Getting our liberated prisoners home is a No. 1 priority. Every skipper of aircraft of Transport Command taking supplies for the forward troops had orders that he must return loaded with liberated prisoners. The tired air crews, flying as much as 11 hours a day, are dumping their supplies on to the fields where the liberated prisoners are waiting, and in a matter of minutes the plane is on its way back to England.

I was on an airfield yesterday just behind the forward area in Germany. Fifty-seven 'planes touched down and took off after a few hours on the runway—on which you would have thought it was sheer suicide to land on at all. From the one airfield in one day 2,000 prisoners of war were flown to England. Standing there and watching it I will admit frankly that I wept—whether for joy or sadness I don't know. It was the most moving human experience I have ever had.

The liberated men were brought by trucks to the airfield from reception areas where they had been concentrated by our advancing troops. Many had been free for several days before making contact with our men; many had escaped after the German guards had fled and had been living on the countryside. As soon as possible the forward divisions had sent them back to a reception area.

The area I was in was one of the few German towns which hadn't been flattened out. For the liberated prisoners we had taken over all the public buildings, and medical and administrative staffs were working hard checking the men's health, documenting them, making nominal rolls and passing them on. The aim was that no man was to be held up in the camp for more than 24 hours. But with men coming in in thousands it was a tough job.

Scarcely any of them had proper clothes; some had no trousers, but just had a blanket thrown round them. They were all under-weight and suffering from malnutrition. Some had been living on raw potatoes; 50% had dysentery and about 60% were verminous; every single one of them was neurotic and flat out tired. Hospital cases were picked out; the rest were bathed, disinfected and issued with clean clothing. Nearly all of them had hair as long as a girl. Within a few hours of their arrival hundreds of them were loaded on trucks, taken to the airfield and on to Home.

*This story of the homecoming of prisoners of war from Germany was recently broadcast from the BBC London by Mr. MacDonald Hastings, war correspondent of *Picture Post*.

They are not all being cleared as quickly as that. The order is to get them to England as quickly as possible, and in many cases the prisoners have been travelling in the clothes they arrive in. Yesterday on the airfield there must have been a thousand excited men watching the sky for a homing plane. They represented twenty nationalities, and yet, apart from the Indians in their turbans, it was hard to tell from their dress which was which.

Many were wearing bits of German uniforms—greatcoats, trousers, even jackets and jackboots. Quite a lot sported German officers' high peaked caps. The only men who had clung to their headgear and wouldn't exchange it for any other were the British airborne troops captured at Arnhem. The airfield was dotted with the rescuers and the rescued, grinning from ear to ear in spite of the fact that most of them had lost 20 to 30 lbs. in weight.

Walking round the airport you could follow the whole war. There was an R. A. F. Sergeant who had been shot down over Wilhelmshaven on September 4, 1939 in the first air raid of the war. There was a Cameron Highlander still proudly wearing the tattered kilt he had worn when captured during the "death or glory" charge of the Highlanders in St. Valerie in 1940.

There were Australians, Gurkhas and Sikhs taken at Tobruk. Many of the Indians were broken-hearted because they had lost their turbans—but an Allied officer of the Military Government turned them loose in a German cotton mill and they had all decked themselves out in the most wonderful coloured materials.

I spoke to one little Cockney I had met in the first battle on German soil fought by the British Army at Gielenkirshen. He was taken prisoner the day after I left. And mixed up with Americans and British Empire war prisoners were Poles taken in the fight for their own country in 1939. French men, Belgians, a few Russians were there—and also one Yugoslav General—resplendent in gold epaulettes, a sky blue uniform and a red band down his trousers. He had been captured during those few days of fighting when King Peter took over the Yugoslav Government in 1940 and the Germans drove into Belgrade.

All the prisoners had the most amazing collection of souvenirs I have ever seen. Their baggage was nothing except souvenirs, most of it the most pathetic rubbish which they treasured like gold. One group had piano accordions; others had ceremonial German swords, daggers, tin hats and bagfuls of cheap razor blades, cameras and fountain pens which in the joy of liberation they were doling out for their rescuers.

One man had an empty picture frame on his back. When I asked him what it was he opened a wooden box and out of it produced an oil painting of himself which he said had been done by a Russian prisoner for a hundred cigarettes. I don't know how many questions I answered about the war and home—home especially—and how soon it would be before we got there. The men milled round me and then I finally tumbled into a plane with a crowd of them, and I think I felt as dead tired as I knew they were.

During the journey the men flopped about exhausted on the floor. Most were too tired for demonstrations, and their stomachs were in no condition to stand the bumps. Suddenly, after a couple of hours' flying one of them who was looking out of the window pointed to a strip of land and said: "What's that?" I looked out and replied smilingly: "You ought to know." The man said in a broken voice: "No, you tell me". I told him they were the white cliffs of Dover. The man repeated it like a prayer—"the white cliffs

of Dover". And among these exhausted bodies littering the bottom of the transport plane there was a stir, and one to another they said: "It's England."

They didn't cheer. They hugged their knees and laughed and laughed till one or two of them cried. I must say I was anxious about the reception they were going to get when they arrived. I realised how much it was going to mean to them. I had a sneaking suspicion that the welcome might be disappointing. I need not have worried.

The welcome was the most touching thing I have ever seen. When the aircraft touched down and ran up to the hangars there was waiting the one thing these men wanted to see more than anything else in the world—a crowd of Englishwomen. And as each one got off the aircraft he fell into the arms of a girl who dragged his bag and walked hand-in-hand with him into the hangar.

The men just looked and gaped and laughed as if they were walking on air. The hangar was decorated with flags. A band played a welcome. There were rows of big armchairs—and how the men appreciated them—papers and magazines and hundreds of girls in R. A. F. blue handing round cups of tea and cake. Later representatives of all the Allied armies took over their own people. The British were taken to transit camps and I went with them to one.

They got the same terrific welcome. They got money, were kitted up, issued with double ration cards, warrants, etc., and after a night's rest taken to the railway station for home. I didn't go with them, for their meeting with their homefolk was something too sacred for anybody else to be looked on. But I stood there with the crowd in the little market town the men passed through and cheered and cheered and cheered.

Some "Churchillian" Phrases

1940. May 13.—"I have nothing to offer but blood, toil, tears and sweat."

June 4.—"We shall go on to the end; we shall fight on the seas and the oceans; we shall fight on the beaches; on the landing grounds, in the fields and on the streets; we shall fight in the hills; we shall never surrender."

June 18.—"Hitler knows he will have to break us in this island or lose the war. If we stand up to him, all Europe may be free and the life of the world may move forward into broad, sunlit uplands. Let us so bear ourselves that if the British Empire and its Commonwealth last for a thousand years, men will still say: 'This was their finest hour'."

August 20.—"British airmen, undaunted by odds, unwearied in their constant challenge of mortal danger, are turning the tide of world war by their prowess and their devotion. Never in the field of human conflict was so much owed by so many to so few."

1941. February 9.—"All through those dark winter months the enemy has had the power to drop three or four tons of bombs upon us for every ton we could send Germany in return. We are arranging that presently this will be rather the other way round. We shall not fail or falter, we shall not weaken or tire. Give us the tools and we will finish the job."

December 11.—"In launching the Nazi campaign upon Russia Hitler made one of the outstanding blunders of history."

December 26.—"When we consider the resources of the United States and the British Empire it becomes still more difficult to reconcile the Japanese actions with prudence or even with sanity. What kind of people do they think we are?"

FURTHER NOTES FROM BRITAIN

BY MAJOR-GENERAL SIR DASHWOOD STRETTELL, K.C.I.E., C.B.

WHAT a year has passed since I sent you my first impressions of wartime England! The invasion of Normandy, the liberation of France and Belgium, the rush to, and crossing of, the Rhine, the surrender in Italy, the reoccupation of Rangoon and the Philippines—and now the unconditional surrender of once-proud Germany.

How has all this news been received in England? Let me say first that it has reflected once more some of the finer qualities of the British people. After these five years and more of the strain of war one would not have been surprised if there had been an outburst of "mafficking." But one would have been wrong. Although London was so packed that at times it was hard to move, there was no disorder of any sort. Crowds were out to enjoy themselves; everybody was smiling and happy; but the riotous happiness of 1918 was not repeated.

One of the finest demonstrations was the rush of the people to Buckingham Palace as an expression of loyalty to their Majesties. It was spontaneous and sincere. Both the King and Queen showed their appreciation by coming out on to the balcony to wave to the crowds below. Later the people had another opportunity of showing their affection, for the Royal procession to the Thanksgiving Service at St. Pauls passed between crowds of cheering Londoners. The thanks of the inhabitants of this Island to them for their untiring efforts were well voiced in the Royal addresses from both Houses of Parliament. Rumour has it that for the Armistice celebrations the police had orders "not to interfere unless there was murder probable!" But there was no reason for interference anywhere. There was very little drunkenness—drinks ran out in most pubs at a fairly early hour. But London nevertheless thoroughly enjoyed herself, and showed once more that "she could take it." From all over the country came similar reports. Truly we can say with pride: "We are a great people."

The public holidays over, everybody is back at their job, all the better for their brief and enjoyable respite. In the political field, many regret the decision to break up Britain's war-winning Coalition Government and to embark on a General Election. In the event of the Conservatives not coming back into power the composition of our delegation to the Peace conference will be hard to choose, for it is unthinkable that Mr. Churchill and Mr. Eden will not be among our representatives.

Housing will be one of our most important post-war problems—to say nothing of the necessary labour to carry out the plans. My own experience will show how difficult things are. After searching for 15 months, we have taken a flat in Earls Court. It was one that had been badly blitzed. Until we *signed the lease*, the war damage repair authorities would not even put in the windows, or doors, mend essential sanitary fittings or renew the electrical wiring. Until we actually occupied the flat, we could not get a permit for the walls and ceilings to be patched up and distempered. No paint was allowed to be removed.

So we are camping in the flat with our luggage and furniture piled in each room, moving from room to room as the workmen finish each. As we were not ourselves blitzed, or newly-married, we can get no permit for extra curtain material, linoleum or floor covering, for which articles our normal coupons are practically useless. Bumbledom is in its glory! On the one hand they tell you in India (quite rightly), to keep your luggage to a minimum, while on arrival

Home no allowance is made for the fact that one has spent years away from Britain and, in our case, have never had a home in England.

The Americans are already on the move—I don't know where to—but a street in which I am working was entirely vacated by them in the last few days.

Our basic petrol allowance has been reintroduced, and taxis and buses are now allowed increased supplies. It will relieve congestion enormously. The former allowance permitted a taxi to run between 45 and 50 miles, so that by the late afternoon many had to go home as their "gas" was exhausted. In the evening taxis have been almost unprocurable, while, even in the daytime, Americans were the most popular fares owing to their generous tipping. I was much amused at the Marble Arch a few days ago to see a Bishop, in full rig, failing to catch the eye of several taxi drivers, who ignored his violent gesticulations!

One feature of this war has been the warm friendly relations which have grown up between members of the United Nations in Britain. It is a feature which must be fostered and continued throughout the years of peace, and with that in view a Club, called "The Allied Circle," has been established at 46 Green Street, London, W. 1, under the Presidency of Lieut.-Colonel Lord Dudley Gordon, D.S.O., and the Chairmanship of Colonel G.R. Crosfield, C.B.E., D.S.O., and as its Secretary for Public Relations I am very keen to make its existence widely known. We hope to establish affiliated circles in European capitals as their nationals return.

Our members comprise men and women of every European Allied nationality, except the Russians, whose Government does not permit its nationals to join such associations. We have lectures by distinguished individuals of all nations, hold discussions on international problems, and, as everything is "under the punkah" one really gets the views one wants to hear—and which are often quite different to those one reads in the papers.

By the way, Brigadier J. Smyth, V.C., M.C. who spent so many years in India, is our Vice-Chairman. Since his arrival Home he has built for himself a fine reputation as military correspondent of the Kemsley group of newspapers, lectures for the Information Bureau, and has become a playwright. His play "On the Burma Road" was tried out in Halifax recently, and he hopes to produce it in London very soon. He has written an excellent book entitled "Defence is our Business," which every adult in the Empire should read. And finally he has thrown down the gauntlet to Mr. Bevin, whose seat at Wandsworth he is contesting in the forthcoming General Election.

The arrival in England of Field Marshal Lord Wavell, and later that of H. E. General Sir Claude Auchinleck created much interest in the minds of the general public, and everyone is hoping that some solution of the problem of India will emerge as the result of the Governor-General's visit.

One subject which is constantly to the fore is that of "export," for Britain lives by its exports of manufactured goods. Part—and a most important part—of our contribution towards the winning of the war has been the disposal of our overseas investments, to make up for which we shall all have to work harder and probably go on shorter commons at home to a greater extent than is generally realised by the general public.

The future is indeed grim, and Mr. Churchill has rightly emphasised the enormous difficulties, economic and political, with which we and the world in general are faced in the post-war world. But the war has proved that the heart of the British people is sound, and if they are told the reasons which govern decisions I am convinced that the country will face the future with the same courage, inflexible determination and cheerfulness with which it has faced and overcome the difficulties of the past six years.

EIGHT MONTHS WITH THE W.A.C. (I)

BY CHIEF COMMANDER ANNE COLLINS.

WE arrived in India in July, 1944, three A. T. S. officers; a Senior-Controller (Brigadier), who had been seconded from the A.T.S. to become head of the W.A.F. (I), with myself and one Junior Commander as her staff. Few people can ever have embarked on a job with less idea of what they were undertaking. Enquiries made in London had revealed very little; we were handed an A. I. I. and told to read it, which we did, most assiduously, on the boat; but it was like trying to reconstruct an unknown beast from a fossil, and we soon decided that we would do better to study the living beast on its own home pastures.

After arriving at Delhi we were duly taken to our offices in G.H.Q. and were surprised to see on each desk several red objects like the halves of large hard-boiled eggs made of terra-cotta. The function of these was not at once obvious, but became only too plain as soon as the fans were turned on. As the papers on our tables usually outnumbered the eggs by at least 50 per cent. we soon found that every conversation was interrupted by one or other party feverishly chasing fugitive papers round the table, flapping and banging at them after the manner of swatting flies; and no one seemed to think it at all odd for the most serious discussion suddenly to turn into a butterfly-hunt. We found this rather a strain at first, particularly when telephoning, as, with one hand out of action and the other trying to write on a sheet of paper about to take wing, there seemed nothing but one's foot or one's chin with which to keep the relevant file open at approximately the right place. Eventually, however, we adapted ourselves, and learnt to dispose our hard-boiled eggs, hands and elbows as strategically as possible.

The second difficulty, also connected with the fans, was that of hearing what was said, as the continual fluttering hum was enough to prevent one hearing at least three words in every sentence, usually the operative words. There seemed a limit to the number of times one could say "What?" to the same person, so we formed the rather unfortunate habit of guessing, and hoping that between us we should be able to fill up the gaps later. This hope was usually—and very deservedly—barren. At first I thought I was the only one afflicted thus with deafness, but after a day or two discovered that the other two were in the same state. The impression that we produced on the W.A.C. (I) staff must at best have been that of mental defectives, and at worst that of total amnesia.

Another of our troubles was the filing which, India being what it is, not only reversed the name of the addressor and addressee, but began the files at the front and worked backwards. (Since our arrival a bold and revolutionary spirit has forced G.H.Q. to make an attempt to adopt the Whitehall filing system.) The system then in force was painstakingly explained to us; no doubt because we could not hear what was said, or were too busy shooting down flying papers with our hard-boiled eggs, we did not fully understand. During the first few days I read through several files with much care and growing bewilderment at the retrograde movement of the matter in hand, which I put down to oriental conditions; only to realise later that I had inadvertently begun at the most recent letter and worked backwards, not having thought of looking at the dates.

The first days were very full and very confusing, but our task gradually took shape before us. The W.A.C. (I) was then 2½ years old, and its composition

entirely unprecedented and revolutionary, as it recruits British, Indian and Anglo-Indian women. These are in no way segregated, but all live the communal life so completely foreign to the way of living of them all. Not surprisingly many problems and difficulties have arisen from this, with which the regimental officers had been struggling from the outset—without having always had as much help and support from the Army as the A.T.S. was lucky enough to have received in our early days. To a newcomer it seemed that the Army in India had at the outset been slow to realise the future usefulness and importance of the W.A.C. (I), and had tended to treat its problems as a joke. It also seemed—though destructive criticism is always easy—that the Army had been curiously optimistic in imagining that a Corps could be created and run with no training whatever.

The organisation of the Corps was parallel to no normal military one, being a strange medley of ranks and appointments. Soon after we arrived it was brought into line with that of other Services, with its Director, Deputy and Assistant Directors. It had still to remain slightly unorthodox, however, as the Army is one side of the picture only, though very much the largest; for the W.A.C. (I) work for the Royal Indian Navy and the Royal Air Force, as well. Personnel working for the Navy wear naval dress—blue-bordered white *saris* in the case of the Indians; there is a Deputy Director for the Naval Wing as there is at each Army or Command; and the charter of the Naval Wing shows a stranger blending of naval and military responsibilities. Certain Companies work for the R. A. F. also, though there is at present no R.A.F. Wing. To correlate and deal with the demands of three Services—all of whom very understandably think their own needs paramount—is not always easy.

One of the great handicaps of the Corps is the fact that a large proportion, both of officers and auxiliaries, are Local Service, and therefore immobile. This makes the posting of officers an appalling task; for not only is there a severe shortage, but the officer obviously best suited for a particular post will probably be immovably rooted several hundreds of miles away from it. Local Service conditions also make the discipline of the auxiliaries very difficult, as C. B. cannot be awarded to them, thus removing at a blow one of the rather limited powers of punishment of the Company or Platoon Commander. A third problem raised is that of training, as no member of the Corps who is on Local Service terms, be she officer or auxiliary, can be ordered to go on a course unless she is willing to do so. To none of these problems is there any answer.

The lack of training from which the officers of the Corps were suffering was very obvious—as it was indeed to most of the officers themselves. An O.C.T.U. had been opened six months before our arrival, and a Selection Board about the same time. Plans were afoot for Other Rank training, for an Officers' School and a Staff College wing; but these had not yet come into being. The W.A.C. (I) were not at the time able to produce officers to open these Training establishments; so we sent an appeal to the Director, A.T.S., who responded magnificently by sending on loan to the W.A.C. (I) twelve extremely good officers. Their tasks were not easy, as the limelight beat very fiercely on the early representatives of our Service, hitherto known in India by reputation only.

The high standard expected, and the fact that we were conspicuous owing to our fewness held the makings of a difficult situation for these A.T.S. officers; and it is high praise to them that from the start they won golden opinions from all sides.

The first, and easiest, step was to take over the O.C.T.U. from the male instructors who had started it so well. Here we were building on a sure foundation, as the male instructors had already begun, with some success, to strike at the

pernicious and very widespread idea that a staff job was the only possible one, and that only the dumbest of dumb clucks should be a Platoon Commander. We felt that something had been achieved when the cadets began to leave the O.C.T.U. willing and even anxious to be Platoon Commanders.

Our A.T.S. Commandant and instructors had it early demonstrated to them that this was no tame and orthodox Corps that they had come to work with. Their first course of cadets assembled, and in their midst appeared an old lady in civilian clothes. This turned out on enquiry to be the mother-in-law of one of the cadets, who assured the Commandant that this was quite normal, and that her mother-in-law had accompanied her throughout her service. Orthodoxy on this occasion prevailed, however, and mother-in-law was somehow disposed of for the duration of the course.

The second venture was to open an Officers' School for officers commissioned before the O.C.T.U. was in being. This syllabus was based on that of the A.T.S. Officers School, and it was run entirely by A.T.S. officers, with a W.A.C. (I) Adjutant. Here there were many potential difficulties—the inevitable reaction of some of the officers, that they had got on as Company Commanders for two years and saw no need for a course now; the question “Why should I go and be taught by A.T.S. officers new to the country?”; the Local Service problem, of officers who stood in sore need of training, but felt unable to leave for even a month their husband, bungalow or even, in one case, their cat. The Officers' School could in fact very easily have been a failure; and the fact that it was from the outset a resounding success does great credit to its staff.

The next effort was the opening of four Recruit Training Centres, with an A.T.S. Junior Commander as Second-in-command-cum-Chief Instructor at each. The conception of basic training was new to the W.A.C. (I) and not always readily acceptable, as the inclination of the auxiliary is usually to waste as little time as possible before being taught a useful and profitable trade. The value of this basic training, and that of the personnel selection that is carried out at the Centres, had perhaps not yet had time to become clear. Here again the syllabus was based on A.T.S. basic training, though a good many adaptations had to be made. The standard of English of many recruits is low, and infinite patience is needed from the instructors, who may be British, Indian or Anglo-Indian girls.

Lastly, the W.A.C. (I) Wing of the Staff College opened at Quetta to cater for a course of 50 students. This was well overdue, as up till then completely raw and untrained officers had been placed in full-blown G-III and Staff Captain appointments.

The planning of these various ventures kept us at G.H.Q. a good deal; but we also managed to tour a certain amount. We visited the North-west Frontier, and also Assam, where we saw at work the first of Tibetan and Nepalese auxiliaries. They were doing signals work at a small place in the middle of nowhere, and were proving a great success. We arrived to find them all drawn up, pressed and starched, with their little flat faces unnaturally solemn. They do not speak very good English, but their Platoon Commander assured us that they had been carefully drilled to say “Yes, Ma'am” and “No, Ma'am.” They were living in wattle huts, seemed to have very little in the way of amusements, but were apparently always contented and happy and very amenable to discipline. We were told that they were fond of singing part-songs, so, after we had been photographed in a group with them, we asked if they would sing to us. This produced paroxysms of laughter, but after a good deal of pushing and squirming they struck up “Shenandoah,” in funny little voices, husky but true. An

American negro song, sung in English by Tibetan W.A.C. (I)s in Assam struck us as being one of our better bits of incongruity.

Throughout our visits, and at G.H.Q. also, we were struck by how much the problems of the W.A.C. (I) resemble those of the A.T.S. in 1940 and 1941. On top of these were, of course, the vast and complex difficulties peculiar to India. Feeding problems : rations have to be drawn for both British and Indian auxiliaries, though both are probably fed in the same mess; and, human nature being what it is, both British and Indians expect to receive not only their own ration, but the more appetising items from the alternative ration. Caste, with all its deep and spreading roots. Different uses of leisure, varying from the Anglo-Indian girl who would think it odd to spend more than a very occasional evening in her quarters, to the retiring and often studious Indian girls who would think it improper to go out at all in the evening. Different social conventions and ideas of morality.

It need hardly be said that anti-Government propaganda loses no chance of exploiting all or any of these problems, with particular and salacious emphasis on morality. This propaganda has of course had a very adverse effect on recruiting, which has at the time of writing not come up to our expectations and hopes. Unfortunately the schools and colleges, who should be a potential source of good material, are in many cases prejudiced and extremely ill-informed about the Corps, its aims and conditions of service ; and the task of visiting them, removing misapprehensions and trying to win them over, is one of the most delicate and arduous that the W.A.C. (I) Recruiting Officers have to undertake. In December, 1944 a progressive and enlightened Brahmin lady, till then Principal of a women's college, was appointed as one of the two Deputy Directors of the Corps at G.H.Q. ; and it may be hoped that her example may assuage the fears and stimulate the courage of other Indian women who have their country's progress at heart.

For the great and overruling problem of the W.A.C. (I) remains that of bridging the gulf between the age-old Indian conception of woman's capacities, and the ideal of service and shared responsibility. For this reason, we believe that the immediate wartime purpose of the W.A.C.(I) is of secondary importance ; its greater service may be to the future of India. This second ideal will not be easy of achievement, as to speak to the average Indian woman of responsibility and of service to India is to appeal to conception at present unknown to her. Progress is therefore bound to be slow and at times discouraging ; but we hope that the W.A.C. (I) may perhaps have laid foundations upon which a worthy building may later be erected by the women of India.

Benefits of Information.—"The fighting men of America and Britian have been reared on the ideals of a free Press and free speech. These are the two great principles we are fighting to preserve. They are among the basic right of mankind. Public opinion wins wars, especially in democracies, and public opinion must be honestly and fearlessly informed. The soldier likes to read about his unit and his local commander. Correspondents should be encouraged to mention the identity of units actually in the line when those have obviously been identified by the enemy. The freest possible flow of news is the best way to keep the public working in support of the war effort."—*General Eisenhower.*

OFFICERS OF THE POST-WAR INDIAN ARMY

By MAJOR B. D. KAPUR.

MAJOR-GENERAL F. M. Moore's article on the "Post-war Indian Army", published in your October 1944 issue must have been read with keen interest by all professional soldiers. It was definitely an eye-opener for many, and was certainly a good basis for constructive thinking. It served as a good reminder that the vital factors, "Indianization" and "Indian Officer" must not only be well remembered when formulating plans for the future, but should be made the basis of all reorganization schemes.

The Reorganization Committee set up under the orders of the Commander-in-Chief, India, has been assigned a very general task of outlining the nature and size of the future Army in India. It is hoped that in due course a body may be formed to consider the new Indian Army in detail. This article discusses only one aspect of the future Army; that is, its future officers.

To quote General Moore: "The Indian Army of the past was made by its officers; the Indian Army of the future should be made by those serving now." Very necessary, too, that *we* should mould the Army to come. And the foundation of that "we," presuming the policy of Indianization is implemented fully, will be the Indian Officers. About five hundred of them have made the Army their permanent career, and quite a few hundred will join them at the end of this war. And these few will form the base on which the Army of the distant future will have to build itself.

Mechanization and the highly scientific state of warfare demand very high qualities from officers nowadays. Officers have not only to be physically strong and mentally alert, with a forceful commanding personality, but also well-seasoned in the scientific technicalities of their particular Arms of Service. Specialization applies as much to the Army now as to any other avocation in life, and this indicates that we should be more particular in making our choice of officers. To get them we must fathom every source whence full facilities to develop the necessary qualities in officers are provided.

Unquestionably the first and the principal source would be the officers themselves. Environment builds character. The son of an officer brought up in the atmosphere of barracks and military activity is psychologically inclined in that direction. Even as a tiny child he likes to wear uniform and his father's sword. He wants to ride; he wants to do what he sees. If that mind is guided and given suitable education, no better talent could be desired.

To obtain it for the Army, drastic changes are necessary. For example, what encouragement does the Army provide for the Indian Officer to get married? How many Indian parent officers can afford to give their sons the necessary education, which, obviously, is best provided in institutions like the Prince of Wales Royal Indian Military College and the Doon School, Dehra Dun? The reader may think the same old sore and much vexed question of the Indian Commissioned Officers' pay is being probed again. That is by no means the case. Our object must be to find means to guide and help the parent officer to direct his progeny into his own profession. We want to build up among Indian Commissioned Officers the Army tradition of generations of fathers and sons forming family links in regiments and units. In that way the two dominating qualities of an officer, personal pride and a deep sense of responsibility will

become more of an inheritance than an infusion in the short period of cadet training.

Here are some suggested methods which might achieve this :

First.—A concession in fees for the I. C. Os' children for education in the R. I. M. C. and the Doon School. Within the present range of his income, unless backed by private money, no I. C. O. up to the rank of Captain can afford to give suitable education to his children. Above that rank, none can afford to educate more than one child.

Second.—Military schools and colleges subsidized by the Government might be organised on the same basis as K. G. R. I. M. colleges are run for sons of V. C. O. and soldiers. Or reorganization of the Prince of Wales Royal Indian Military College, Dehra Dun on a less expensive basis for I. C. O's children would be a great help.

Third.—Grant of child allowances to I. C. Os, as are granted to officers of the British Army.

The second obvious source to draw upon the potential officers is the Prince of Wales R. I. M. C. It is difficult to understand why boys, after a thorough schooling in a military training college, should be asked to compete with civilian boys who have had none of the facilities provided to the R. I. M. C. cadets. Why should not the "weeding out" be carried out during their course at the college, and a competition held among the cadets themselves? Surely with our present system of education in India few institutions can excel the R. I. M. C.? The aim should be to accept the maximum number of candidates into the Indian Military Academy from the R. I. M. C.

The third source for the new officers would be the "open" cadet. In pre-war days 50% of the vacancies were filled through an open competition; the other 50% came from the Army. One significant complaint of the Interview Boards and the Board of Examiners was that the right material for the Army was in grave shortage. These reports were published time after time, and vain cries raised to invite the right youth. How one wishes that instead practical steps had been taken to overhaul our age-old system of education! Not only the Army, but every Government service would have benefited.

To improve military knowledge, the facilities of the University Training Corps might be extended to all universities. Also membership of the U. T. C. for two years could be made compulsory in all Government subsidized colleges. To catch the boys young, physical training should be made compulsory in all schools, and the training organized under the supervision of military staffs attached from local formations. This step alone would provide a tremendous gain in military knowledge.

Raising the entrance age might assist in attracting the right type of youth into the Army of the future. The age limit of "open" entrants has been restricted to between 18 and 20 years. Many a youth who had an empty boyish allurements for commissioned rank got drawn in. And 18 years being a tender age to decide one's avocation in life, quite a number proved a failure as soldiers, whereas some of them could have fitted in first-class civil appointments and been an asset in the government of the country.

The normal age for graduating from a college is 20 years. If the age of entrance were raised to between 20 and 22 years an average entrant would have reached a more decisive age than heretofore. Consequently the more suitable, keen and adaptable-to-the-Army type of youth, who would find himself faced with other professions as well, would have the chance to choose Army as a career.

Presuming the University Training is established on a firmer and wider footing, he would also have had better opportunities of forming an idea of the Army before entering it.

The fourth and the last source of officers is the Army itself. In view of the high educational and intelligent background now required of an Army officer, no direct recruitment should be made from units. Suitable soldiers or "boys" should go through a two or more years' course in military and general education, on the conclusion of which they should compete to fill the quota of vacancies. Reorganization of the inter-service pre-cadet course at the Kitchener College, Nowgong, which fulfils our purpose for the time being, is suggested.

The ratio of vacancies to be allotted to Army cadets is a debatable point. Before the War, Army shared 50% of the total. In actual fact, there were two classes of Army cadets: "Y" cadets, and the other class who were normally recruited into the Army as sepoy until "found" by their Commanding Officers as being suitable for commissioned rank.

The "Y" cadets ranged from the inexperienced, extravagant student from an expensive college, to the well-seasoned, experienced adventurous youth who had already seen a lot of life. They mostly comprised those who could not find their way into the Army through open competition. They normally came of the high intelligence strata of India, and most of them worked their way into the Army through the influence of their parents. After roughing it for one to three years in the ranks they were eventually selected for training at the Indian Military Academy. Apparently quite a large majority of them have fared very well, and proved their worth in this war. What percentage of this system of entrance should be encouraged it is difficult to decide. But it is suggested that this avenue of entrance should be left open for those keen young men, who, owing to their bad luck or over-age cannot enter through the normal channels.

For the second class, the pure Army Cadet, who entered the Army with no intention of being commissioned, a lot has to be said. He was normally of humble parentage, a V. C. O. or a soldier, but he had sufficient intelligence to be outstanding compared to other sepoys. With no intention of being snobbish, or to cast any aspersions on the quality of the soldier-officer of India, the writer is inclined to agree with the psychologists, who maintain that children of parents enjoying superior social status are on the average more intelligent than those of parents forming the lower strata of society. Handicapped as these cadets had always been, they always seemed to find it difficult to get on. The writer knows a few well-decorated and brave junior leaders who, having had bitter experiences as officers, prefer to go back to the ranks, being confident that in due course they would rise to Subedar-Major, a rank which some of them prized more than that of a Major. In the writer's opinion, the intake of Army cadets, including the "Y" cadets, should be restricted to about a third of the total.

General Moore seems to have forgotten one factor when suggesting the abolition of V. C. O.s. At present the V. C. O. forms the backbone of the Indian Army; he is linked with its traditional foundation; he has become such a vital part of the Indian Army that it seems difficult to think of the Indian Army without him. Moreover, the normal sepoy feels the V. C. O. to be a part of his family. It will take a long long time to separate the two, and certainly is not advisable in the process of Indianization.

When the Indian Warrant Officer was created to replace the V. C. O., the ardour of other ranks dampened. A sepoy dreams of the respect and the "halo" of influence the V. C. O. has built round himself in the Army. He aspires to reach it one day. Higher commissioned rank is something out

of his mind's reach, and until the Army is fully Indianized, the writer feels that the V. C. O. should be maintained.

The V. C. O. in the new Army should be made to play a more important role. So far, pure and simple soldiering has been his masterpiece. In technical arms higher technical knowledge has found him beaten for lack of sufficient education and intelligent background. If the final replacement of the British Warrant Officers and senior British Non-Commissioned Officers in the very highly technical trades is to be aimed at, a proportion of the V. C. Os. must be recruited direct by an open competition from the educated class of youth to fill in these appointments. In the Technical Corps it would be a fair ratio to recruit 50% of the establishment of Jemadars by this method. These recruits should be given their basic training at the Kitchener College, Nowgong, along with the Army cadets preparing for entrance to the I. M. A.

To implement this, the scope of the course at the Kitchener College must be extended. Besides the extension of the course to, say, two years to cover additional subjects, instruction in Higher Mathematics and Higher Science must be made compulsory for the potential technical V. C. Os. The final selection might be made in order of merit as a result of an examination and an interview Board. They should then be drafted to the technical units—i.e., Engineers, Signals, I. E. M. E. and other services: Navy and Air Force—in the order of their selection for services and arms, dependent on the vacancies available. Better terms than those offered in the equivalent civil services would, however, have to be promised to attract suitable candidates.

The retention of the V. C. Os. in the Indian Army does not imply that a young officer should start higher than a platoon command. He must get his basic training and learn man-management in a platoon. But at the same time he should not remain condemned to that limited sphere of responsibility for a number of years. His period of platoon command should end with his promotion to a full Lieutenant, and after passing the prescribed examinations for his confirmation in the service.

The writer belongs to a Corps. Before the present war he was given an independent command of a sub-unit at a very young age. He found that his position was envied by many senior officers in the station who had grown grey in the Army. They all seemed to remark the same way: "You fellows are very lucky in a Corps. We in the Infantry never smell any responsibility until we have put in more than 17 years' service. By that time we become so blunt that most of us get condemned for further promotion."

There is a lot in that. The peacetime army helped one to drink and live an expensive way, but afforded very little opportunity, particularly with the Infantry officer, to exercise initiative and practical ability in a responsible capacity. Some managed to keep their ends up, survived the "dead" period, and soared high. An officer's "initiative" and "power of command" for writing his annual report were judged either on the "square" or on a sham exercise.

These methods may be all right for practices and early stages of training but certainly have no lasting value in the gradual development of the mind. Yet the same young man in the civil service either governs or is the chief of Police of a district, appointments far more responsible in peace time, and demanding first-class initiative and executive ability. Why has the Indian Army attached high rank to age, rather than to the energetic portion of one's life when one is 100% more alert and active?

The present war has proved the value of younger age in high ranks, more so in foreign armies than in the British or the Indian Army. Admittedly ten to fifteen years' service is sufficient experience to command a battalion or an equivalent unit in war. During operations, of course, the dormant faculties of an officer have better opportunities of developing and showing up than in peace, which adds weight to the argument that an officer should be led earlier up the ladder of rank in order to develop gradually his sense of responsibility, to give him something more to think about before his brain has reached a stage of stagnation.

To give the younger element a better chance to exercise authority and a wider outlook on life, compulsory retirement should be fixed at 55 years of age if not earlier.

Promotion on a time-scale and compulsory retirement at a fixed age is suggested hereunder :

<i>Rank</i>	<i>Service (in years)</i>	<i>Age</i>	<i>Remarks</i>
2/Lieutenant	23	Enter I. M. A. at age 20½ years.
Lieutenant 2	25	
Captain 5	28	
Major 10	33	
Lieut.-Colonel 15—18	38—41	By selection.
Lieut.-Colonel in command	41—45	Tenure of command 3 to 4 years.
Colonel and Brigadier	50	Compulsory retirement.
Higher ranks	55	Compulsory retirement.

All Majors considered unsuitable for further promotion after 18 years' service should be posted to a "Specially Employed List." These Majors should fill all administrative appointments, such as S. S. Os., Camp Commandants, Registrars, etc. On reaching the age of fifty they would be automatically pensioned. When no further vacancies can be found for them an "Unemployed Roster" would have to be made, or special terms for pension devised.

It is also to be expected that a certain number of Lieutenant-Colonels will become surplus on completion of commands. Their services could be best utilized in command of U. T. C. battalions and other appointments of a national character, such as Inspectors of Physical Training of provinces.

In conclusion the writer is tempted to quote Major-General Moore again : "Indian officers must be given opportunities to prove themselves both as commanders and as staff officers, and every endeavour must be made to *teach* them, bearing in mind the important roles they will have to play in the future Indian Army." Many senior officers are conscious of the above facts, but it is of no use ignoring the fact that lip service to this ideal is not sufficient. Many feel that more could be done in practice.

After all, wars are not fought every day. This is an ideal opportunity for the young Indian to learn. A young Indian looks for encouragement, impartial treatment and a guiding hand. A critical attitude, if changed to helpful guidance could achieve a lot for the Indian youth in this war. Distant hopes held out to him are of no use if his present ability is not put to the test.

THE FAMOUS INDIAN MASS ESCAPE FROM EPINAL

AS RELATED TO CAPTAIN A. DEWAN.*

THE MOST exciting day in our lives was on May 11, 1944, for on the afternoon of that day some Allied bombers came over our camp at Epinal and demolished a part of the barbed wire fence surrounding the prison.

Most of us had been captured in the Western Desert in June, 1942. We had spent our time in several prison camps in North Africa, Italy, Austria and Germany, and finally we were taken to a newly-constructed prison in Epinal, in France. It was erected specially for Indian prisoners, of whom there were about 4,000.

Apart from the German guards, it was run under the joint management of a British Captain and an Indian Lieutenant, both of the I.M.S. We were separated by castes and lived in the stone-built barracks; prisoners of each unit had a room or rooms to themselves. Many were Mahratta, and on Sivaji Day in April, 1944 we celebrated the festival and invited all the other prisoners to come along. At the end of the day we organised a fund, raised 7,000 francs, called it the Sivaji Fund, and used it to help the sick and needy prisoners.

Our sentries were Frenchmen, who were posted under German N. C. Os. at every twenty yards round the perimeter. They were all round the barbed wire fence. There were no slit trenches, and in the event of an air raid warning being sounded the orders were that we were to be locked in the barracks.

Then on May 11, 1944 came the great day. At about 3 p.m. some Allied 'planes came over unexpectedly. There were from fifty to seventy-five of them and in less than half an hour they dropped nearly fifty bombs. Many of the prisoners were loitering in the open at the time of the attack, and we owe it to that that there were not more casualties.

The first lot of bombs that came down did what we hoped they would do—part of the barbed wire fence was destroyed. Unfortunately, half a dozen bombs hit one of the barracks. There was complete chaos. The air raid alarm was sounding, but all the prisoners ran through the gap in the wire to the neighbouring ravines and forest. After about an hour the Germans came and rounded us up. We found some of our friends had been killed when the bombs hit the barracks, but it was lucky more were not in it at the time.

The German Commandant strangely enough ordered us to carry as much food, clothing and necessities as we could, and go out into the country outside the camp not more than five or six miles away, as he understood more air raids were likely. But no raids did come—excepting that an hour afterwards another 'plane appeared. The alarm was sounded and we bolted, but no bombs were dropped. It had evidently come over to see the result of the bombing.

*One of the most dramatic mass escapes of prisoners of war out of Germany occurred at Epinal in France, when hundreds of Indian prisoners succeeded in getting away and reaching Swiss territory. They arrived back in India a little while ago, and this account of their experiences was related to and translated by Captain Dewan, of the 5th Mahratta Light Infantry.

The men whose experiences are here related all belong to the 5th Mahratta Light Infantry. They include: Hav. Clerk Ganpatrao Tawada, Hav. Tatasahab Sawant, Hav. Ragunath Patil, Naik Barburao Ghorpaela, Naik Mahadeo Kadam, Hav. Subedar Sawant, Naik Tukaram Shelke, L/Naik Shiddu Shinde, Sepoy Deorao Dhamane, and C.H.M. Shirpat Gaikwad.

On the night of May 11-12 about 500 of us spent the night in a ravine, surrounded by about half a dozen German sentries. As dawn broke we were ordered to disperse more—and to many of us it was too good to be true for we saw the chance of escape. Within less than an hour the number who were getting off as fast as they could in the direction of Switzerland increased.

Without map or compass, and with only a rough idea of the direction of the frontier, we made off. German motor cycle patrols came along the roads, but few were recaptured. French farmers gave us food, help, and a chance of rest. Bread and eggs we were very glad to have for we had no food with us. One old French lady stopped us, and without any explanation from us, said we were escaped prisoners and she was very pleased; she gave us some excellent bread and cheese and advised us not to follow the main road as it was patrolled by the Germans, but to take the power line as a guide.

This was good advice, because a little later we heard the noise of some motor vehicles, and like lightning we took cover on either side of the road, lay flat on our stomachs and saw two German armoured cars go by. We decided to avoid roads and went deep into the forest. The going was very slow, and at about 4 o'clock in the afternoon we were stopped by an old French farmer, who was an ex-soldier of the last War. He told us to wait, went back to his home, and two hours later returned with his son and daughter, bringing eggs, bread, butter, cheese, two bottles of wine, three bottles of beer, a French-English dictionary, a cheap compass and a map. Later the same night another young son of a farmer provided us with a good map, and even marked on it the route and the areas infested with the Germans.

One party met a French farmer, who told them to get well into the forest, and led them for a couple of miles to show them long strips of khaki coloured paper about 1 foot long and two inches wide. These strips had been dropped by Allied aircraft and had been placed in the forest at about 200 yard intervals to show the safest and shortest route to Switzerland.

We went on and arrived at a place called Lure, where there was a large airfield, and soon after starting onwards the next morning we met an old woman and a young girl, who told us to follow them as Germans were ahead. They took us on a narrow track leading to a thickly wooded mountain, and left us. At 6 o'clock that night we came to a road and rail crossing, where a gatekeeper was on duty. This gatekeeper detailed another man to guide us; he did so, and left us at the foot of a hill, telling us to climb it and look for the house of a schoolmaster, who would direct us further.

By the time we got to the top we were dead tired and sat down to rest; it was nearly midnight, but just then a horse cart appeared, and we asked the driver for help. He made us put all our kit in the cart, made the most tired of us climb inside, and took us to the schoolmaster's house, where we found about thirty other Indian prisoners.

The next morning, on May 18, the schoolmaster and five other Frenchmen led all 34 of us past Belfort to a very thick forest, where extensive defence works of the last War were still to be seen. There we found 80 more escaped Indian prisoners. Next day the schoolmaster and his five friends led the 114 of us to another place, and we spent the day and the next night hiding in trees and bushes. These brave men took us to within seven miles of the Swiss border.

One Mahratta soldier was not so fortunate. After the air raid and the demolition of the wire fence round the camp at Epinal he and some friends got away, but after about twenty miles the party was recaptured and taken to a fort

to join about a thousand other Indians who had got away. They were kept in German hands and brought back to Epinal, where they heard of the news of Allied landings in France and also rumours that the Germans were to take them back to Germany. Those two pieces of news made this Mahratta soldier more determined to escape.

He found a large, disused water drain which led out of the camp, but there were thin iron bars at the entrance. Taking a few more into his confidence they acquired a few tools and in thirteen days cut the bars. Then it was decided to let the others know the way of escape—and over 700 of them wanted to make the attempt. All wanted to be the first, and, of course, the plans broke down.

This young Mahratta, however, decided that he would escape alone, and on July 15 he slipped out unobserved and walked as fast as he could. He came to a farm, was directed to follow the Power line, and for four days lived on berries and food given him by farmers. Only on one occasion was money demanded. He had been walking for eight days, and had climbed a thickly wooded mountain when he came across a house and an old woman standing outside. He begged for food, which was refused, but on showing her ten francs she gave him a loaf of bread and some cheese. This acceptance of money made him suspicious, but she seemed to be friendly and showed him the route.

A little way further on he saw two Gurkhas with some civilians, and getting nearer he identified them and was soon embracing them. They told him there were fifty other prisoners hiding in the mountain, including two Mahrattas. They also explained why the woman had accepted money for food. She was feeding all fifty of them, and they had insisted on paying her in cash. Next day the lone Mahratta escapee found his two Mahratta friends, but they and the whole party had decided to wait there until the Allied forces reached them. This lone Mahratta then decided to continue the journey alone and eventually reached the Swiss frontier safely.

The generosity of the French people was remarkable. They hid the Indians in cellars and all sorts of places to keep them from being recaptured. One man related how on May 30 he met a French Sergeant major named Maurice, who made himself responsible for a party of five Indians. He said he was a member of the *Maquis*, and had already helped 800 Allied prisoners to cross the Swiss border.

He took the Indians to his dug-out in the hills and showed them his cave, in which were a large collection of Mk II Sten guns and other automatic weapons which had been dropped in France by Allied aircraft. He made the Indians discard their battle dress and provided them with civilian garments, and after giving them a good meal, armed himself and led them on to another member of his force.

The next day the party was given three guides—two Frenchmen and one Pole, all armed with Sten guns and pistols. The whole party marched that day and the night of May 30/June 1, and at 0530 hours on the latter morning they reached the Doubs river, the boundary between France and Switzerland. There the three guides left the Indians, showed them the crossing, saw them across safely—and disappeared back into France to continue their good work.

Another party had an exciting time when only a few miles from the border. They had been badly split up; one group ran into a German post and

was fired at ; the dogs were let loose, and the men hid in the crops. They had four horrible hours lying on the ground and fearing recapture at any moment. Luckily, all went well and they continued to walk on. After an hour or so they stopped to brew some tea. A farmer came up and advised them to go another 1,000 yards, as, he said, that was Swiss soil. The party ran on and crossed the border safely—but two minutes later a German motor cycle patrol appeared, just too late to do any harm!

An American on Mr. Churchill

Mr. Wellesley Atkinson of 2142½, State Street, San Diego 1, California has written to "*The Times*."

"Recently I listened to an American criticizing Mr. Churchill on the radio. He disagreed with certain of Mr. Churchill's policies in regard to some of the liberated countries and took occasion to give the Prime Minister a verbal shellacking.

"Now, this sort of tongue-lashing is an old American custom. I understand the same freedom prevails in Britain, and Mr. Churchill catches it every now and then in the House of Commons. Yet he gets his vote of confidence just as regularly. So did our Mr. Roosevelt.

"Unfortunately, however, you people in Britain, having only our radio broadcasts and our magazines and newspapers by which to judge American opinion, do not get the true picture. Particularly, I am sure you are not aware of just what we think of Mr. Churchill.

"In the late summer of 1940 I was mining gold in a remote section of northern California. Each noon we left off work in the river bottom and walked up to our cabin on the hillside above for lunch and to listen to the news. It got so we took a long time to get up to the cabin. We did not want to hear the news. It was always the same, the same inexorable voice pounding out the same story. It was like the tramp of the feet that were marching over Europe and the world. The sun was shining down through the silence of the forest around us and the air was warm and clear, but we knew our freedom was no longer secure. It hung by a slender thread—20 miles of ocean, a handful of Spitfires, a few ships and guns.

"Then we heard that voice throwing back defiance into the teeth of the enemy, rallying a nation and the world. There was anger in that voice, and measured fury, but no despair. It was the calm voice of a courageous leader pleading for unity. He would get it. We opened our cabin door and let that voice ring out into the stillness. Let the neighbours hear it ; let the world hear it. We did not care much about going back to work. It seemed like Sunday, and that we had been to church.

"That, Mr. Editor, is what we really think of Winston Churchill."

THINGS PEOPLE SAY

"Freedom is liberty to do what we ought."—*Rev. Harold Hazell, D. S. O.*

"It is not easy to argue with pessimists."—*Mr. Brendan Bracken, M. P.*

"Great moral courage is one of the rarest qualities among men."—*Lord Moran.*

"British oilfields have produced 78,000,000 gallons of oil during the war."—*Mr. E. R. Yarham.*

"The finest war memorial in England is All Saints College, Oxford."—*The Bishop of Chichester.*

"The R. A. F. have dropped nearly 1,200,000 tons of bombs during the war."—*R. A. F. statement.*

"If war tried our courage and endurance, peace will test our wisdom and faith."—"Manchester Guardian."

"Personal savings in Britain during the past five years have totalled £5,524 millions."—*Mr. W. Manning Dacey.*

"A British Commonwealth Air Training Plan should become a permanent part of Empire defence."—"Daily Mail."

"The last siren of the war was sounded at Aberdeen and Montrose on the afternoon of April 30, 1945."—*Official statement.*

"Admiral Chester Nimitz was promoted over 28 senior admirals to take command after Pearl Harbour."—"Daily Mail."

"Of the victorious nations, the British Commonwealth alone has fought continuously since the war began."—"The Observer."

"During the war 11,000 Atlantic flights have started or ended on Prestwick (Scotland) airfield."—*Sir Thomas Moore, M. P.*

"Seven years of common danger, strain, work, restrictions, have created a hard core of realism in Britain."—*Mr. C. A. LeJeune.*

"If the besetting vice of dictatorship is tyranny, the besetting vice of democracy can be slackness."—*Mr. Herbert Morrison, M. P.*

"Between 5,000,000 and 6,000,000 European Jews were exterminated by the Germans in and out of Poland."—*Dr. Emanuel Scherer.*

"Twice as many heavy A.A. guns as were used to defend Berlin are in action around Greater Tokyo."—*Colin Bednall, "Daily Mail."*

"Every port in southern England before D-Day was a bomb aimer's paradise. Yet not a bomb fell."—*Sir Archibald Sinclair, M. P.*

"Admiral Lord Louis Mountbatten has flown 100,000 miles since his appointment as Supreme Allied Commander."—*S.E.A.C. statement.*

"It was estimated at the time of the Libyan campaign that seven 10,000 ton ships were needed to carry one division."—*The Prime Minister.*

"On the day we invaded Normandy we had 5,000,000 men and women in Britain working on munitions of war."—*Mr. Oliver Lyttelton, M. P.*

"Next to the four Big Powers, India has supplied most manpower to the United Nations' cause."—*Sir Ramaswami Mudaliar, speaking in San Francisco.*

"There is a marked desire in the Chinese Press and among politicians for warmer relations with Great Britain."—*Mr. O. M. Green, in the "Observer."*

"About 7,000 new-type flying bombs a day would have hit London if the Allied armies had not liberated the Calais area so quickly."—*Figaro, Paris.*

"On one single night before D-Day the French resistance movement cut railways in France in over 1,000 places and blew up hundreds of bridges."—*Paris Radio.*

"General Slim is a soldier's General; he always thinks of the men's welfare."—*Lieutenant-Colonel Knightsdale, broadcasting from London on the Arakan.*

"Sixty years ago the world's annual output of aluminium was less than 40 tons; to-day it is between 3,000,000 and 4,000,000 tons."—*Mr. W. J. Passingham.*

"Before the war the value of Great Britain's agricultural output was about £290,000,000 per annum. Now it is about £600,000,000."—*Mr. Tom Williams, M. P.*

"The German bullion found in the caves of a 2,000 ft. salt mine near Gotha is more than £50,000,000. Thirty 10-ton lorries were needed to carry it."—*"Daily Herald."*

"One-third of the supplies and equipment used by American invading troops on D-Day was manufactured by Great Britain."—*Brigadier-General Wayne Allen, U.S. Army.*

"The Presidents of the United States who were elected or re-elected in 1840, 1860, 1880, 1900, 1920 and 1940 all died in office."—*"Peterborough," in the "Daily Telegraph".*

"Ninety-six volunteer medical students from big London hospitals brought the death rate at the Belsen concentration camp down by 50% within ten days."—*London official statement.*

"At least £25,000,000 has been added to the cost of the war by the difference in British and American standards of screw threads."—*Mr. William L. Batt, American Production Board.*

"During the year ended March 31, 1944 nearly £307,500,000 was paid over Post Office counters in Britain in war pensions, Service and billeting allowances."—*G. P. O. announcement.*

"It is an astounding fact that during this War there has been an almost universal rise in the birth rate in Western countries, whereas in World War No. 1 there was a fall."—*Mr. E. F. Schumacher.*

"The German has always thought tenderly of his stomach. He should now be entering on a prolonged period of enforced slimming as his contribution to the world's food supplies."—*Mr. M. L. Prescott.*

"Never in the history of war has the entire fighting strength of a great military State been more decisively ground into fragments and overwhelmed in the uttermost catastrophe of defeat."—*"The Times."*

"I have never called upon an Indian formation to carry out a job which has not been achieved willingly and efficiently in the shortest possible time."—*Lieutenant-General Sir Oliver Leese, Commanding A.L.F.S.E.A.*

"So far as is known, the Germans started this war without mine detectors. We certainly had none. Of mines they had a large stock, and had developed the land mine further than we had."—*Brigadier E. K. Young.*

"The Royal Canadian Navy is one of the great wonders of the war. It has grown in the space of $5\frac{1}{2}$ years from one of the smallest navies in the world to one of the largest."—*Bryan Tunstall, broadcasting from London.*

"The reason we do not often catch the point of American humour is that it is designed to render the fantastic real, whereas our own humour is designed to render the real fantastic."—*Mr. Harold Nicolson, M.P.*

"There was no wood for more coffins in Amsterdam. Coffins in Zuider Kirk had trap door mechanisms, so that the dead could be dropped out of them into the graves and the coffins used again."—*B. B. C. Correspondent.*

"It is a national concern that the war-time goodwill which in so many suffering countries has placed the letters 'B. B. C.' on a level even with those of the 'R.A.F.' should be preserved and enhanced."—*"The Times."*

"During their joint times in war, the QUEEN MARY and the QUEEN ELIZABETH have steamed a total of 960,000 sea miles, and have carried together 1,250,000 passengers, or equivalent to a hundred divisions."—*B. B. C.*

"Orders for the manufacture of 'Piat' guns were given in April, 1942; in the following November the First Army took its 'Piats' to North Africa; a year later 100,000 of them had been supplied to the Forces."—*"The Times."*

"Anti-aircraft gunnery, like the rocket, is in its infancy. Quick-firing heavy artillery is a definite possibility in the near future. I believe that gun-laying during actual firing is possible by electrical control."—*Professor A. M. Low.*

"A Canadian airman flew from Canada to England with 25 lb. of high explosive inside his flying suit for fear that low temperatures might detonate it if it were left in the bomb-bay."—*Dr. Cyril James, Principal of McGill University.*

"What Mr. Churchill has offered India is a good deal more than our President offers Puerto Rico in the Bill he recently commended to Congress. We Americans must not be self-righteous about Empire."—*Miss Pearl Buck, the American novelist.*

"G.I.s and officers liberated from prison camps in Germany are to be posted to operate prison camps in New York, New Jersey and Delaware. They are considered to be eminently qualified for these duties."—*Major-General Thomas A. Terry, U. S. Second Service Command.*

"Some 4,500 Germans at the Carl Zeiss optical instrument works and another 2,000 at the Schott glass works in Germany are working under American Army ordnance officers in the manufacture of bombing sights, rangefinders, binoculars, etc."—*Bureau of Public Information.*

"Because it is my 'pigeon', I would like to appeal for solo turn stars to go to India and Burma to do ward shows in hospitals. It takes four or five days to cover a big base hospital with two or three shows daily."—*Miss Joyce Grenfell, Ensa artist, who recently visited India and Burma.*

"The new 58-ton Shetland flying boat, Britain's largest 'plane, has a wing span of 150 feet and is 110 feet long; it has a top speed of 267 m.p.h. and cruises at 184 m. p. h. with a payload of 3.4 tons for 4,650 miles, the distance between London and Bombay."—*"Daily Telegraph" air correspondent.*

"The Kaiser, Hindenburg, Ludendorff, and von Tirpitz all died peacefully in their beds. If the present German murderers and torturers escape the penalties they so richly deserve, a lasting bitterness will remain with the millions of people who have suffered at their hands."—*"Daily Mail."*

"On a wall in the furnace room in Dachau concentration camp was a notice in German: 'Cleanliness is a duty here. Don't forget to wipe your hands'. Beside the furnaces was an extraordinary mural painting of two headless S. S. officers astride bloated pigs."—*Mr. Young Wilson, B. B. C. Correspondent.*

"Seven hundred times since the beginning of this year lone R.A.F. Liberators of the Eastern Air Command's Strategic Air Force have taken off for enemy territory carrying secret agents and their equipment for delivery at pin-point targets far behind the Japanese lines."—*Wing Commander L. V. Fraser.*

"The effrontery of the average German is unbelievable. Just after Gotha fell a German aircraft manufacturer there inquired how soon the Americans wanted him to start making accessories for their aircraft, and offered to convert his plan within three days."—*Cornelius Ryan, "Daily Telegraph" war correspondent.*

"In ten years Australia should be a matter of three days' travel, New York an overnight trip of five or six hours, and most capitals in Europe less than a two-hour journey from London. World operators will need aeroplanes carrying 50 to 100 people at about 500 m. p. h."—*Mr. R. H. Dobson, Messrs. A. V. Roe & Co., Ltd.*

"Early in 1943 the Japanese guards in Burma told Australian prisoners that the Japanese had occupied Sydney, had taken Adelaide with a bayonet charge, and were mopping up other parts of Australia. They said preparations were being made for the invasion of the United States."—*Mr. W. Forde, former acting Prime Minister of Australia.*

"Of 739 loaded cargo ships in supply convoys to Russia by the Arctic route, 677 arrived, losses being 8%. The Royal Navy lost 95 officers, 1,561 men, two cruisers, five destroyers, eight escort ships and an oil tanker. Many hundreds of British and Allied Merchant Navy men died. Seven British destroyers and an escort carrier were damaged."—*First Lord of the Admiralty.*

"Whereas in 1914—18 surgeons were able to save a proportion of men who had suffered moderate blood loss by means of a single pint, or at most, two pints of blood which they could collect on the spot, we in this war can give a good chance of life to men who have suffered huge losses of blood, even as much as six, seven, eight or more pints."—*Brigadier Sir Lionel Whitby.*

"People of three world religions meet in Arakan—Christian, Hindu, and Muslim. There is a fourth, a purely local religion in which for a hundred years the inhabitants have worshipped the memory of an Englishman—Captain Cox, of the Madras Army. He afterwards founded Cox's Bazaar, where even to-day there is a shrine in his honour."—*Lieutenant-Colonel Knightsdale, broadcasting from London.*

"The punishment must fit the German crime. The crime was insolent and arrogant nationalism. The punishment must be poetically just: internationalism, statelessness, a pacific setting in the heart of Europe to the jewel of collective security. The Germans must expiate their crimes in service to an international order which it has been their 30-year objective to frustrate."—*Viscount Hinchinbrooke, M. P., in "The Observer."*

"Japanese explosive balloons are sent across the Pacific in a continual west-to-east air current from five to seven miles over the earth. The balloons lift a five-layer bag, 35 feet across, and travel at 130 m.p.h. As they begin to lose hydrogen and drop below the five-mile level the ballast and the bombs are automatically released, and the balloons rise again. Ballast and bombs can be dribbled out several times."—*Donald Catling, "Daily Express".*

"While honours in the Burma campaign are so richly deserved by all, by the incomparable Air Force that solved every difficulty of transport and supply, by the ground troops driving on even in the monsoon, special praise must surely be given to the strategy of General Slim, disposing and moving his troops so as continually to round up and destroy the enemy with a precision which ranks him among the first Generals of the war."—*The London "Observer," in an editorial.*

"Japan is the one belligerent among the Big Powers whose manpower has not yet been absorbed into a mass army. Though the population of Japan proper, with Korea, Manchuria and Formosa, exceeds 150,000,000, Japan has hitherto mobilised less than half the number of divisions that Germany put into the field with her smaller manpower supply. At the moment, Japan probably has not more than 4,000,000 men in her armed forces."—*Military correspondent, "The Observer."*

"Twice only in recorded history has a tyrant in possession of the bulk of Western, Central and Northern Europe regarded himself as secure and defied all attack from West or East. The position of Napoleon in 1812 and of his miserable imitator of 1942 have great similarity. Each failed, not only from the arrogance of his ambition and the unexpected toughness of the enemies whom he despised, but from an obvious fault in his strategical conception of war at large."—*Sir C. Oman, in the "Army Quarterly."*

"There is a mistaken notion about the relation of religion to morale. A man's adherence to religious principles should encourage him to avoid infractions of law and to soldier well for a just cause. But it cannot force him to do this—nor does it intend to. Religion encourages the development of virtue and character—it does not force it. No officer can convince his men that there is need for God and virtue who does not cry out that need by his own example."—*Chaplain H. P. O'Hara, in the "Infantry Journal" of America.*

Will members kindly note that articles and other communications for the Editor of the Journal of the U.S.I. of India should be addressed to Lieutenant-Colonel H. C. Druett, Editor, "U.S.I. Journal", c/o Edn. 3, G.H.Q., A.P.O., Delhi. Communications concerning subscriptions and requests for books from the Library should be sent as in the past to the headquarters of the Institution in Simla.

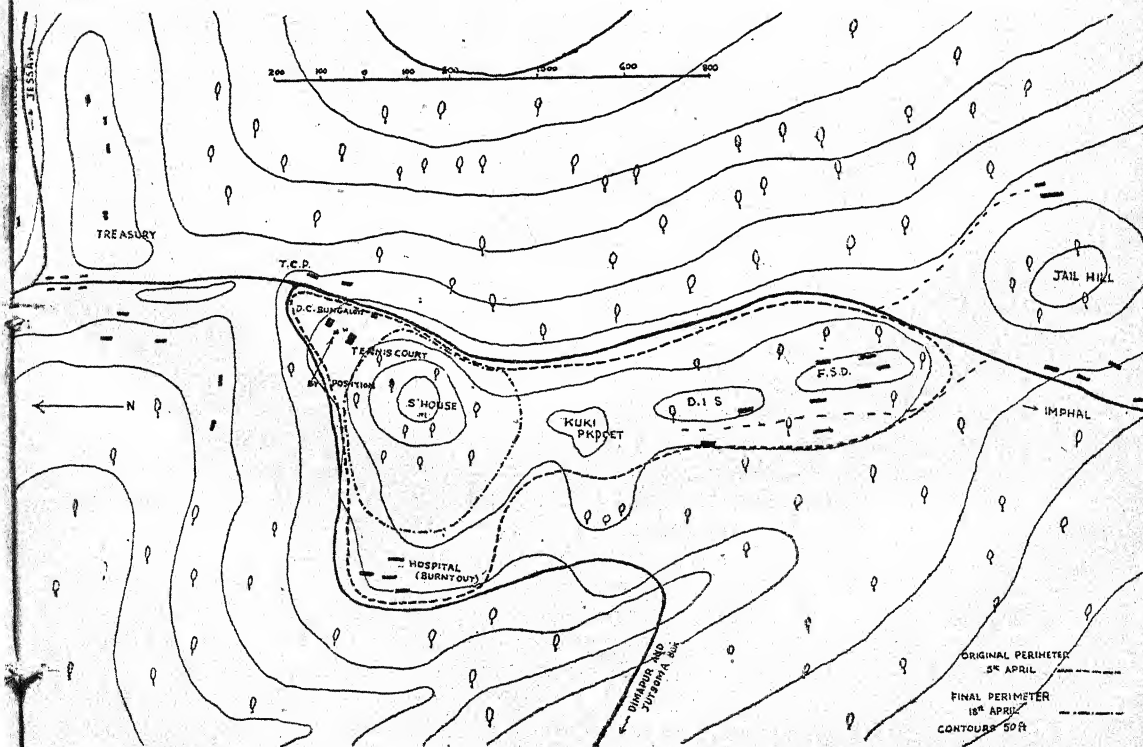
THE GUNNERS AT KOHIMA

By X. Y. Z.

LITTLE public recognition of the part played by the Gunners in the defence of Kohima has been made and though this story does not attempt to give a full account of the action, it is an endeavour to put the Gunners "on the map." The period described is the first part of the action—the period up to the time the original defenders were relieved, by which time the operation had swollen from a brigade to a divisional affair.

The action took place at a part which is about 5,000 feet above sea level. The hills and valleys around Kohima are built on a grand scale; steep slopes are everywhere. Hill-sides were mostly thickly wooded, though occasionally there are open spaces and terraces of paddy fields. The climate was pleasantly cool; the monsoon had not broken, but the few showers had been very welcome as the garrison was at all times very short of water.

Kohima is astride the main Imphal—Dimapur road and about 45 miles from Dimapur and 120 miles from Imphal. A jeep track runs east to Jessami, whence a hill track led on to the Chindwin. A second and indifferent road ran back towards the Assam plain some way north of the main road to Dimapur. Kohima was therefore a road junction of importance which, combined with the commanding hills across and on both sides of the road, made it of vital importance to both sides. Most of the hospitals, depots and base installations had been evacuated, but there were still large quantities of food and ammunition in the F. S. D., including some champagne and burgundy and rum and beer, though unfortunately the F. S. D. was set alight before these were issued.



Early in March it became obvious that the Jap was advancing in some strength towards Kohima in the north and Imphal in the south. Accordingly, the Division was withdrawn from Arakan, and two of its Brigades, with their supporting artillery, were flown into Imphal, while one Brigade and the Divisional Mountain Regiment were flown into Dimapur and lorried up to Kohima. Its battalions were the Royal West Kents, 1 Punjabs and 7 Rajputs. The Mountain Regiment was the 24 Indian Mountain. Lieutenant-Colonel R. H. M. Hill's batteries were the 2, 11, 12 and 20 Mountain batteries.

By the end of March the enemy was within 20 miles of Kohima, both on the Jessami and Imphal roads, the latter place being cut off by road from Dimapur and Kohima. Fears for the safety of Dimapur, entirely denuded of fighting troops led to the withdrawal of . . . Brigade troop to that place, leaving Kohima to be defended by various units. Some were L. of C. formations, others had incurred casualties while withdrawing from Jessami. There was no artillery in the garrison, which was commanded by Colonel Richards.

Two or three days after the withdrawal of . . . Brigade Group the Japanese reached Kohima and began to press the garrison there. They were stronger than expected, and it was obvious that if the position was to be held it must be reinforced. A Brigade Group was ordered to do this. On April 5 the Royal West Kents, with the firing battery of 20 Mountain, all in M.T., left Dimapur for Kohima with orders to put themselves under the command of Colonel Richards. Later in the day the Brigadier, with the Rajputs and R.H.Q. and 2 Mountain Battery also left Dimapur.

On the arrival of the advance guard and its battery in the evening they found Kohima being shelled. Their arrival, however, put great heart into the garrison, which was feeling somewhat isolated. The same evening the Rajputs and 2 Mountain battery arrived at a point about 4,000 yards behind the Kohima garrison, where they were later joined by 11 Mountain Battery and the Punjabis. There were thus two positions covering the main road to Dimapur, the forward one at Kohima and the rear one, eventually known as the Jotsoma Box position. On April 6 a company of the Rajputs reached Kohima with an F.O.O. party from 2 Battery. After that there was no communication, except by wireless, with the Kohima position, as the Japs swept round it and cut the road. Two or three days later they also cut the road behind the Jotsoma position.

There were thus these two barriers barring the Jap advance on Dimapur, and by the time these barriers had been bypassed the strength of the Japanese advance was very considerably diminished. The brunt of the action was borne by the most advanced position, and it is the fortunes of this isolated garrison that we propose to follow.

An aerial view of the ridge would look like the outline of a hunting saddle when it is on its saddle rack. The pommel is to the left, and the cantle to the right. From pommel to cantle is 1,000 yards, and the depth through the flap 500 yards. On all sides, except at the ends, the ground falls steeply away, but from these two ends ridges run off to the right and left, which ridges later rise into high hills 2,000 yards off, which overlook the position from both sides. On the pommel is the D. C.'s bungalow; in the cantle area are the D. I. S. and F. S. D. The road from Imphal ran along the seat of the saddle from right to left, carved round the pommel and away to the rear to Jotsoma and Dimapur. It formed a natural defence line for over half the perimeter; being on the side of a steep hill, it had a cutting on the garrison side, varying 10 to 50 feet high. There were, however, two obvious lines of approach along the two ridges at either end and it was from these two ends that the pressure came.

To return to Kohima. While the Royal West Kents took up their positions, the battery came into action in the D. C.'s kitchen garden. Guns were carried there from the lorries as transport could not get off the road. These activities, however, drew the fire of some Jap guns, which could clearly be seen on some hills to the right. They were engaged and temporarily silenced. The battery position was, however, not a good one, and subsequent events proved that it would have been better to leave the guns right behind in, say, the Jotsoma position area.

On April 6 Japanese shelling increased; they also started mortaring the battery position, and several casualties occurred. A welcome reinforcement, however, was 2 Battery O.P., which was able to help with fire from the Jotsoma position. By next day 20 Battery was hopelessly outgunned and it was decided to stop it firing altogether, for firstly 2 Battery was available, and secondly the return fire which 20 Battery drew was doing a great deal more damage in the crowded area than the battery was capable of inflicting on the enemy. After this the Kohima gunners were used as infantry. O. P.s continued to observe for the guns outside, however.

Let us continue with the story of the guns. On the night of 7/8 the Right section was withdrawn to the top of Summerhouse Hill, while the Left remained in the D. C.'s bungalow area. On the night of 8/9 the Japanese put down a heavy concentration on the D. C.'s bungalow area and, under cover of darkness, having driven off our troops in that sector, they got right into the position and captured the bungalow, only 10 yards from the nearest gun-pit. The guns, however, were then in pieces and scattered about in slit trenches. During the day the detachments defended themselves fiercely, but they were pinned to the ground and movement was difficult. Being on a forward slope did not help matters. Two counter-attacks by our infantry were repulsed, the bungalow proving a hard nut to crack. An attempt to set it alight by Molotov cocktails which some sappers manufactured also failed.

Accordingly, when it was clear that the position was not likely to be restored, detachments were withdrawn to the top of the hill. Essential parts of the guns were also got away, but under heavy fire, and a further withdrawal had to be made that night. The D. C.'s bungalow area was not again in our hands until the end of May, but it is interesting to note that the Japs made no effort to remove any of the captured guns, though they did use parts of them for strengthening their bunkers. We recovered nearly all the parts, and sent them off for third-line repairs. The battery also lost many stores, treasure chest and officers' mess equipment while most of the officers also lost all their possessions.

From now on the battery detachments were organised as infantry; they did not hold any important part of the perimeter again until April 15, when withdrawal from the D. I. S. area left them again in the front line. Next day a gun from the Right section was brought into action on Summerhouse Hill, and opened up with H. E. at about 100 yards range on to Jap bunkers. This was in support of an infantry attack on Kuki Picquet, which was between Summerhouse Hill and D. I. S. The attack was, however, unsuccessful, though the bunker was blown in.

O. P.s were busy throughout the siege. Four were found to be necessary for an adequate all-round watch, though these were eventually reduced at night to two.

Early in the action Japs and mules were often seen along the Jessami or Imphal roads, but they never presented a really good target, as they were always widely spaced. As soon as they heard a shell coming they would take cover.

The only thing was to shell their probable forming-up areas on the reverse slopes. To begin with, Jap guns appeared right in the open in single positions; the gun itself was always concealed, but smoke and flash could be seen. Several were successfully engaged and silenced.

About 2,000 yards to the left or N. of the position was the Naga village, covering the top of a hill which overlooked our left flank and provided excellent cover in its houses and narrow lanes. It was fired by 3.7 smoke, the resulting blaze being quite impressive, though one felt sorry for the unfortunate inhabitants. There was also a spectacular fire within the perimeter, when early on in the action the Japs set alight the *bashas* in which the F. S. D. and D. S. I. were. In addition to the valuable hospital comforts mentioned, there were large quantities of 25-pdr., 3.7 and S.A.A. there. The gunners had rescued most of the 3.7 before the fire started, but the 25-pdr. and S.A.A. enlivened the whole of one afternoon by their explosions. It appeared to the Jotsoma Box that their Kohima partners were being subjected to a prolonged bombardment, but a W. T. message soon reassured them.

O. P.'s most vital function was to call for D. F. fire to help repel the nightly attacks, which sometimes numbered three or four. These attacks came along the two ridges which led into the position from right and left. They were thus at right angles to the line of fire from the Jotsoma Box—a very fortunate circumstance. The closer the D. F. could be put down the better for us, and it was generally 100 yards out, sometimes as close as 50 yards. Not once in the whole action did a shell land inside our perimeter, despite frequent switches and alterations of range at night. O. P.s were kept with the companies at each end to begin with, but company commanders themselves were soon able to order any D. F. they wanted and adjust it. They spoke either by line or W. T. to the Royal West Kent H. Q., next to which was the main O. P. with W. T. to the Jotsoma position.

Jap attacks were generally, but not always, preceded by a mortar concentration, backed by a few shells from their Mountain 75 and infantry guns. They were usually very noisy when forming up to attack, shouting and talking, which gave our men an easy signal to ask for D. F. from both guns and infantry mortars. Attacks would be put in any time after dark, though up to an hour or so after dark and an hour or so before dawn were perhaps the favourite times. The nights were also enlivened by "Jiff" propaganda, one powerful-voiced gentleman being capable of keeping it up for hours at a stretch. His prime effort was directed at the I. O. Rs., who were told: "Come over here to us and we will make you all Jemadars." He was ignored, though if he appeared to be too close he was saluted with a grenade or two.

On a typical night in the main O. P. next to Battalion H. Q. there would be frequent requests from the Battalion Commander for "Gunner D. F. No. 8" or whatever D. F. was required. After a bit one got quite good at anticipating requirements, and it was satisfactory to be able to say: "It's on the way, Sir," or "It's coming down now, Sir."

Not all Jap attacks were repulsed. On the 7th a very dangerous infiltration took place in the F. S. D. area and much hard fighting was necessary before the Japs were thrown out. The O. P. officer at one time found himself in command of the company in that area. During this action Private Harmon of the Royal West Kents earned a posthumous V. C.

On April 9, as I have mentioned, the D. C.'s bungalow area was lost, and subsequent withdrawals reduced the garrison to Summerhouse Hill—200 yards across in front, broadening to 400 yards at the rear. In this narrow space all

the sound and wounded men had to be concentrated. Several hundreds of the latter could neither be evacuated nor got under really decent cover. Twice the dressing station received a direct hit, two M.O.s being killed on the second occasion.

Communications were, of course, vital and the wireless was kept going all the time by careful nursing of batteries. Charging was done by an American engine previously used to keep a meteorological set going. Shortage of acid was a problem, but it never became acute. Interference from American sets ground to air and *vice versa* was always very bad early in the evening. The 22 set was not so badly affected as the 21 set in this respect. The Battalion-Brigade set, being on a different frequency, was good, and sometimes used as an alternative. Telephone lines were continually cut and it was necessary to bury them—a difficult task as the ground was very rocky under a light subsoil.

All supplies, including water, were air-dropped, but the area was so small that at the end only 50 per cent. of the drop was recovered. It was annoying to see parachutes thought to contain three-inch mortar ammunition landing in the Jap lines, as they were obviously using three-inch mortars against us. A large number of parachutes failed to open, and stores often slipped out of their lashings. Two men in the battery were killed when a container of water hit them. Many parachutes got hung up in the trees, and climbing for them made too easy a mark for snipers who, by the end of the action, were able to see into nearly the whole position. For some days the Jotsoma Box was isolated, and had to be supplied by air. Gun ammunition was at one time in rather short supply, but no calls for fire were ever refused on that account.

Towards the end of the action, 25-pounders and a Medium Section with 2 Division, who were advancing to gain contact with the Jotsoma Box, were available for harassing fire, but all D. F. was done by the Mountain Batteries.

On April 18 the 1 Punjabs entered the position. They were the first relieving troops, having handed over their Jotsoma position to a battalion of 2 Division. Wounded were got out, and on the 20th the gunner detachments were withdrawn, as were the R. W. Ks, who handed over to the Berkshire Regiment from 2 Division. On the 21st the O. P. parties of 20 and 2 Mountain Batteries handed over to other O. P.s of their Regiment, and some O. P. parties from 2 Division also arrived. The first part of the action was over. It had cost 20 Mountain Battery twelve men killed or missing, and 29 men wounded, out of a total of 80 men engaged.

As a tailpiece, it might be added that 2 Mountain Battery alone amongst the Brigade Group remained continuously in action in front of Kohima until the Japs were finally defeated there. 20 Battery were re-equipped and continued in action also.

THE PREVENTION OF WAR

BY COLONEL H. F. HUMPHREYS, O.B.E., M.C., T.D., K.H.P.

IN 1919 it was perceived that one of the causes of war was the anarchy of international relations—the absence of any code of laws or even agreed code of morals to bind the separate and sovereign Powers amongst whom the world was parcelled out. The League of Nations was an attempt to lay the foundations of a new international order, and the reasons for its failure are fresh in our memory.

The end of the last war saw seven great Powers in the world, the British Empire, the U. S. A., France, Russia, Germany, Italy and Japan. If these had desired to work in harmony to keep the peace, no squabbles of minor powers would have seriously disturbed it: but they did not. For the first decade three of the seven (the U. S. A., Germany and Russia) were not members of the League at all, and soon afterwards two of the remainder, Japan and Italy, appeared openly in the role of aggressors and attacked the very principles they had sworn to defend.

When the challenges came (Manchukuo, 1931, Abyssinia, 1935 and the Rhineland, 1936), only France and England were left to apply sanctions or defend the structure of international peace. Both had allowed their armaments to sink to a dangerously low level: the peoples of both countries had given unmistakeable evidence of their reluctance to face the ordeal of war, and possessed the timid governments they had deserved. And the minor powers (the fifty nations whom Mussolini boasted that he defied in 1935, were not prepared to move a ship or a gun when it came to the point.

This war has demonstrated once more the complete helplessness of small nations when confronted with the mechanised armies of the major Powers, and the moral of the business is clear. World Wars will not be abolished by passing resolutions in praise of peace either in the League Assembly or elsewhere. They can only be prevented if the great Powers of the world wish to prevent them and are prepared to go to war with an aggressor. The most perfect machinery will fail to work unless there is a will to put it in motion. If nations are unwilling to accept the thesis that peace is indivisible and to fight in any quarrel not immediately and indisputably their own, wars will certainly recur.

The end of the war will leave three great Powers in control of the destinies of mankind, the British Empire, the United States of America and Russia. Of the others Germany and Japan will be disarmed for a generation, while Italy and France seem likely to sink to the second rank. If complete harmony of purpose between these three is attained and persists, peace will be preserved. Is this possible? Only if certain conditions are fulfilled, (i) *agreement on peace aims* and a real will to peace, (ii) *the creation of effective machinery* for regulating international affairs, and (iii) *the mitigation of the causes of war* which are and always have been either economic rivalry or lust for power.

Agreement on Peace Terms will not be easy to reach, and Britain has the difficult and important role of bridging the gap between the other two. For with Russia she has vital interests in Europe, and with the U. S. A. she is concerned with the safety of commerce in the Seven Seas and the skies above them. We have looked at some of the difficult problems concerned with the settlement of Eastern Europe, but behind the settlement of frontiers looms the

vast enigma of Russia. She will emerge as the greatest military power in the world: what will she do?

All the utterances of Stalin give evidence of a wise and statesmanlike attitude. She has vast territories to develop, and vast populations with which to do it. But the war has enormously stimulated Russian nationalism (the orders of Suvurov and Kutusoff bestowed on Russian Generals recall commanders who in the 18th Century led Russian armies into Italy, Germany and the Balkans): her government, the absolute dictatorship of one man, Stalin, can hardly expect more than ten years of power, and his successor may revive the traditional Russian policy of a drive towards warm water through Turkey to the Mediterranean, through Persia to the Arabian Sea, and through Manchukuo to the Pacific.

It is the danger of dictatorships that great power corrupts, that the people have no voice, and history holds only too many examples of dictators who have sought a diversion from troubles at home in a war of aggression abroad. With the U. S. A. an opposite tendency is to be feared. Isolationism in America is traditional: it is a direct legacy from Washington, the first President, who warned the infant republic against entangling alliances, and its advocates were in full cry right up to Pearl Harbour.

They then went underground, but they may emerge with the declaration of peace, and even now the widely read Hearst and McCormack press contains virulent attacks on Great Britain and Russia. If the history of 1919 is repeated and the American Senate refuses to commit the U. S. A. to any obligations in the maintenance of peace the prospect is bleak. The paradox posed by the Roman is still true: "If you desire peace, you must be prepared to fight in its defence."

The international machinery for preserving peace set up by the League of Nations failed mainly because there was no effective will behind it: but apart from that, the machine was badly designed and neglected some elementary principles of dynamics: it gave the tiniest South American Republic the same power and privilege as the great nations, despite the fact that all real responsibility lay with the latter.

It paralysed action by insisting on a unanimous vote: it forgot that all law rests ultimately on a basis of force and left armaments in the hands of independent and sovereign states: it tried to crystallise the status quo and set up no machinery for effecting peaceful political change: it attempted too much at once and essayed a complete and rigid system fresh from the professor's study, instead of proceeding step by step and building upon the firm foundations of established facts.

It may be that in time, in a century, possibly in less, a watertight and warproof organisation of the nations will arise, perhaps with an international police force enforcing international law: it clearly cannot come till nations are prepared to surrender a considerable measure of the sovereignty which all now claim as a right, until the flame of nationalism that at present burns brightly everywhere has died down, until the economic rivalries of the nations have been replaced by the economic co-operation foreshadowed in the Atlantic Charter.

Meantime, let us lay foundations, starting from the salient facts which stare us all in the face: that for a long time effective power will lie with the three victor nations, who after the experience of two world wars in a generation will be cautious in surrendering it: and that no second-class Power can hope to stand alone, or even as a member of a local league, unless it can count on

effective support from one or more of the Big Three. The smaller nations will therefore tend to fall naturally into groups clustering round these three, and conditioned primarily by considerations of geography and national defence : though economic interests and ideological urges will play a part working in some cases for and in others against the compelling conditions of geography.

There will be a tendency for these groups to develop into Leagues : everyone can now see that one of the main causes of the currency chaos, the strangling of international trade, the economic blizzard and the unemployment in Central Europe which put Hitler into power was the setting up by all the little succession states of the old Austrian Empire of economic and political frontiers, complete with separate coinage, tariffs and customs regulations.

If a post-war group of Powers enters first into a League for mutual defence ; then fixes standard exchanges and forms a *Zollverein* or Customs Union to encourage a free flow of trade between the members ; then evolves an assembly for regular consultation with powers to recommend, and finally, perhaps, to take decisions binding on all its members, they will have become true Federal Unions, with a far better chance of survival than the League at Geneva. All will learn to abate something of their national sovereignty for the common good. The British Commonwealth since the Statute of Westminster provides the working model for such a league.

We can perhaps see something of the shape the three leagues may take. Around the U. S. A. will cluster all the countries of the two Americas and after her experience in this War, she will certainly retain sufficient naval and air bases in the Pacific to give her the complete mastery of that Ocean and the islands therein. The security of Australia and New Zealand is hardly less bound up with that of the U.S.A. than is the security of Canada.

Along the Atlantic coast, opposite Britain lie a group of nations. Norway, Denmark, Holland, Belgium, France, Spain and Portugal, which have much in common : all depend on sea communication : all are democracies, except the last two, who have been and may be again ; and amongst them are all the chief Powers in the world which have overseas colonies. Here is a natural grouping, and already in many of these countries influential voices have been raised urging that they should join the British Commonwealth of Nations.

Through the other nations of that Commonwealth, Canada, Australia and New Zealand, through their democratic institutions, through their common interest in sea communications, so many strands will bind the group to the American league that a rupture between the two is hardly conceivable.

The U. S. S. R. will stretch from the Pacific to the Carpathians, and on her Western flank a group of smaller powers, Finland, Poland, Czechoslovakia, Hungary and Roumania will be drawn into her orbit. Stalin has renounced all desire to interfere with their internal politics, but it is inevitable that their foreign policies should revolve round the Kremlin. Such a group will form a great continental bloc, which will have at its disposal such a vast wealth of natural resources awaiting development that for it the necessity for overseas trade or sea power will hardly exist.

There should thus be little or no rivalry between it and the two maritime groups. Their common share in victory will start them on the path of friendship, the years will tend to smooth out their ideological differences and breed confidence in each other, and some day the time may be ripe for their union in a single Federation.

Indeed the framework of such may well be laid down at once: It is essential that the three *blocs* should be regarded as co-equal, should bind themselves to keep the peace by a treaty in which the greatest common measure of agreement attainable at once should be embodied, and should regard themselves economically and strategically as complementary to each other, not as rivals.

All possible causes of friction should therefore be removed, such as might lead to a competition in armaments. Prominent amongst these is the problem of keeping open and safeguarding those places where the main streams of the world's sea-borne traffic contract to run through a narrow waterway, the Skagger Rack, the Straits of Gibraltar, the Sicilian narrows, the Bosphorus, the Suez Canal and the Malacca Straits.

Russia must be assured of an outlet for her trade through these, and she will certainly desire to develop the new outlet through Iran and Irak to the Persian Gulf, which has proved of such importance to her in this war. This must be arranged in such a way as not to start a naval armaments race with the U. S. A. and Britain.

The main responsibility for policing the world is clearly going to lie with Naval and Airforce units, and a network of naval and air bases will girdle the globe: in planning these the strategic interests of the main Powers may sometimes clash with local sovereignty, present or future. The British agreement to give long leases to the U. S. A. of sites in our West Indian Colonies showed how the problem could be solved.

It is in some such way as this that an international society might come into being, step by step, slowly perhaps, but surely. It is much easier to keep the peace between three Powers than between fifty, and the manifest direction in which mankind is marching is towards integration into ever larger units. Hitler's New Order recognised that, but his aim was the permanent enslavement of Europe and a denial of the four freedoms for which the Allies are fighting.

Let us take some examples. The great coal field which runs from Arras to the Ruhr crosses French, Belgian, Dutch and German territory: clearly it could be far more productive and efficient if under a unified direction, and the same is true of the Silesian coalfield which lies in Poland, German Silesia, and Czechoslovakia. This job of integration and others like it have been done by the Nazis, and the grouping of nations I have suggested offers a means of preserving it.

There are many nations I have not referred to. All should be free to join one or other of the Groups or to remain outside: it may well be that some will belong to two, as Canada in a sense already does, and thus help to draw the three of them together. The countries round the Mediterranean would at first look to the maritime group headed by Great Britain, as they have in fact done for a century.

As the peoples in Asia and Africa obtain their freedom and reach adult political stature, which they must inevitably do, East Asian, Arab and African Groups may emerge. China and India may in time become great Powers. But this is to look far beyond the present and practical beginnings which it is our business to make. Bismark defined politics as the "art of the possible" and the immediately possible is our present concern.

The Causes of War are and always have been either psychological or economic, and the most obvious psychological factor making for war in the past century has been the complex of feelings we call nationalism. It is woven of many strands, good ones, like patriotism and love of country as well as bad

ones like pugnacity, desire for power and dislike for strangers, a fault to which the British have been particularly prone.

Modern capitalism with its hunger for new markets, and the rapid growth of populations that everywhere mark the 19th Century increased international rivalry and greatly augmented its force. In the old dynastic Europe of the 18th Century it counted for much less, and in the catholic society of the Middle Ages with its consciousness of a common Christendom it hardly existed. We must recognise that the powerful mass emotions generated by nationalism are likely to prove stronger than the cool demonstrations of the political philosopher that we must become internationally minded or perish.

But the growth of a feeling of working class solidarity between the different nations of Europe tends to undermine nationalism, though it must be admitted that the records to date of the successive "Internationales" or labour federation have not been impressive. And we must hope that the growth of federal unions will teach us that interdependence is more important than independence and that we shall learn to apply to international relations the same principles of Christian conduct that we normally observe in our personal relations to one another.

The economic causes of war should be more easy to mitigate than the emotional ones: for while the tempest of war has blown upon the fires of nationalism and caused them to glow more brightly, there have been a series of changes, all tending to curb the old imperialistic scramble for profitable markets. There is first the simple fact that the world has now been fully explored and parcelled out amongst the Powers. Ethiopia and China were the last examples of undeveloped and unprotected lands inviting exploitation by economic imperialism.

In the last two centuries the dominant note in history has been the extension of power by the peoples of Europe over the rest of the globe: but that race is now over, and it seems probable that the next century will witness a rapid growth both in political stature and economic progress of the backward peoples to something nearer the European level. This and the shrinking population of Europe must inevitably reduce the rivalries of the European nations.

Even on the level of trade there is a new perception that co-operation brings more prosperity than competition, which expresses itself in the formation of international cartels or groups to control the production and distribution of important goods such as steel, oil, rubber, tea, etc. Doubtless the motive here has been a desire to maintain prices and profits, based on the old classical economic of scarcity. But we are now witnessing the triumphant vindication of a new economic of plenty: Stalin in Russia, T. V. A. and Lease Lend in America and the Ministries of Production in England have all demonstrated the almost unlimited capacity for creating wealth which modern industry possesses if directed towards production for use rather than for profit.

It is highly probable that the cartels, the production boards and the international committees which have come into being will continue their work of eliminating wasteful competition and will direct the flow of goods where they are most needed: in so far as they succeed they will reduce international friction.

With the change in economic theory and practice has gone a change in moral outlook: the sufferings and the insecurity of the working classes under modern capitalism have profoundly disturbed the public conscience. There has been a sharp decline in the prestige of the profit motive, and the

smart guy who makes a fortune is now more likely to figure as the villain than the hero of a novel.

The feeling has grown that the basic industries and the means of production and exchange are in some degree a public service, and should come under public control, and that the prosperity of the people should be paramount above the privileges of property. The steady growth and widespread diffusion of such ideas show themselves in the Atlantic Charter, which lays down that the raw materials of industry should be freely available to all nations, and that none should seek to enrich themselves at the expense of another.

When we win our four freedoms let us remember that they are not all. The French Revolution inscribed on its banners Liberty, Equality, Fraternity. Of these, liberty seems to have been most cherished by the British, equality by the Russians and Fraternity by the Americans : indeed the three are not easy to combine as we see in Russia, where a very high degree of equality has been achieved at the cost of almost all personal liberty. If you are employed by the State, there is no appeal against your employer : and though the elimination of waste, the attainment of security, and the drift towards large scale integration of man's social activities make it inevitable that the State should come to control more of our lives, we must be on our guard against the danger of all State enterprises, that of a bureaucracy strangling initiative and drive with red tape and regulations.

The building of a better world requires vision and courage on the part of all of us. In the troubled Europe of the thirties the Nazis had more of these than their opponents : we must set against their evil vision of German hegemony a nobler one of the four freedoms, freedom for all black, brown, yellow and white : and the price of that freedom is eternal vigilance. If we settle down again to a life of getting and spending, and leave the business of conducting national affairs to professional politicians or black-coated bureaucrats the liberty for which we have fought so hard will elude us.

As several times before in her long story, Britain has a unique responsibility in the coming years. She lies mid-way between Russia and the U. S. A. not only in space but in her ideology, and she must bridge the gap between them : she is the greatest colonial Power in the world, and must set a course for her colonies that all can approve and follow : she has a political experience and a record in the evolution of liberty that are unique in history. Let us see to it that she continues to move in the vanguard of the army of mankind where she has marched so long.

ARMY WELFARE AND THE W.V.S.*

BY MAJOR-GENERAL J. G. ELLIOTT.

AN essential preliminary to a talk on Welfare is to be quite clear as to its place against the general military background. The ideal of every commander must be that every man under him is not only more efficient, physically and technically, than his opposite number among the enemy, but that he is fired with an enthusiasm and determination to fight. In other words, morale must be good.

Now morale is dependent primarily on essentially military factors; physical fitness, confidence in personal prowess as a man-at-arms and superiority over the enemy, and faith in and admiration for one's leaders. Welfare is the tonic in the military diet, and as such should be taken in controlled doses.

We hear a great deal of the standard of amenities provided by the United States forces for their men, so it is of interest to read something written by the Hon. J. McCloy, Assistant Secretary of War in Washington. He spoke of morale in this way:

"A good soldier's morale is something like a lady's virtue—you don't talk about it; but there has been so much said about it recently that I want to add my bit. Above all, we must rid ourselves of the notion that morale is achieved by giving somebody something. Real morale is more readily achieved by depriving soldiers of something, rather than by giving them something.

"Hostesses, movies, soda fountains, and what have you, have their place, but endurance of hardship, sacrifice, competition, ability to outdo another unit, the feeling of inner strength—in short, the knowledge that he is tough, hardbitten, and able to take and inflict hard blows, gives the soldier morale, and the more he has to put up with things and overcome obstacles, the more it develops."

You may find that I deal, when I descend into detail, more with the British than with the Indian soldier. This is due to two reasons: not because the Indian soldier is in any way less worthy of attention or consideration, but because the British soldier is a stranger in a strange land, and therefore far less able to fend for himself, and because the British soldier has developed more elaborate tastes and therefore needs more looking after. The main headings under which I discuss welfare are identically those under which consideration must be given to the interests of the Indian troops, or the African troops for the matter of that, and you can elaborate them from your own experience. Almost everything I say applies equally to the Royal Navy and Royal Air Force.

I am going to discuss Welfare under six headings. First, I should tell you what the Army is doing to help itself, then after some general remarks on help from outside I shall venture on some suggestions as to what the W.V.S. in particular can do for us.

Of all form of Welfare I give pride of place to care of the soldier's family. Anxiety as to the well-being of his wife, his children, his father and mother, or

*This informative talk by the Director of Welfare, G.H.Q., delivered to the W.V.S. Provincial Conference recently held at Dagshai, contains much that is of interest and value to every officer serving in India and to the large number of W.V.S. workers in this country.

of anything that for him comes under the heading of "home" is a care that will occupy his mind to the exclusion of all other things, and the further he gets from home, the more difficult it becomes for him to get news, the more acute will his trouble be until not only will he cease to have his heart in his work, but he may even end by becoming a casualty from mental causes. We have various remedies. First of all, of course, we try to ensure a rate of pay and allowances that will enable the family to live in a reasonable standard of comfort. Then, since we cannot prevent people having accidents or falling ill, we have the S.S.A.F.A. and S.S.A.H.S., who give help on the spot and are also the channel whereby we get information for the soldier, and verify his application for compassionate repatriation. We have a widespread organization, which we are still enlarging, that does the same for the Indian soldier.

We get a quota of air passages, averaging about 60 a month, to fly Home British officers and men who have extreme compassionate grounds for an early return. We have also a Legal Aid Section, to which the British soldier can apply if his domestic affairs have unfortunately reached the stage where he feels that the Divorce Court is the only possible answer. Records show that the majority of these cases occur towards the end of a man's tour of service abroad, which is undoubtedly one of the reasons why we hear so much criticism directed at the length of the qualifying period for ordinary repatriation. This period, now fixed at 3 years 4 months, is being very strictly enforced. Any question of its revision is one of high policy, in considering which a large number of factors have to be weighed up.

Next in order of importance I put the welfare of the man in hospital. We ask the fighting man to risk his very life from enemy action, and we expect most soldiers to go into all sorts of unhealthy and insanitary places where they may pick up any one of a dozen or more unpleasant and dangerous diseases, so it is only reasonable to both sides that the soldier should get the very best medical attention if he does become a casualty. That side of it, of course, is a strictly military responsibility in the hands of the Army Medical Services, and a number of distinguished visitors to this country have said, I think quite genuinely, that our hospitals here compare well with any in the world.

Another category we have to deal with is the soldier in transit, chiefly by train. The Indian railways are not only now carrying many more passengers than in 1939, but in the early years of the war rolling stock was even sent out of India to the Middle East, so the railways are doing more work with less resources. The answer, of course, is more and better railway carriages, but for some reason I have never been able to discover they are apparently one of the few things you cannot build in wartime. In consequence there is little doubt that the welfare of troops when travelling is still one of the weakest points in our administrative arrangements. We are of course doing what we can about it. A number of carriages are being overhauled and electrified, and proper arrangements for meals are being made at the big stations all over India.

It is time now to turn to the care of troops in their own barracks and camps where, compared with those I have been talking of, they are comparatively well off. The first thing they need is rooms where they can go to read or write letters if they want to be quiet, or where they can play games or listen to the wireless or a gramophone. The whole standard of such rooms and of the scales of provision of games and wireless sets has improved very considerably in the last 12 months.

Next there is the question of the canteen. A lot of people light-heartedly say that we ought to have the NAAFI in this country, and I entirely agree with

them in saying that we ought; but the difficulties of collecting the skilled staff in wartime, and in the face of the opposition we should undoubtedly have to encounter, are so great that it really is not a feasible proposition. A very great deal has been done in improving matters in directions where standardization is possible, that is to say in the provision of a wider and more plentiful range of canteen stores, but things are far less satisfactory in tea and supper bars where the standards of the local contractors vary enormously.

It is in the next aspect—how to enjoy himself when he is away from his camp or barracks on pass or leave—that the British soldier is more than anywhere else at a disadvantage with the sepoy; and he must compare things very unfavourably with what is available at Home. After all, if we consider for a moment, the soldier wants to do very much what you or I would; a little casual shopping, tea, a cinema or theatre and a meal and a drink to top up with. Alternately we go out to the house of a friend. In Great Britain the soldier virtually becomes a civilian for the time being and enjoys all the facilities provided by private enterprise for the ordinary civilian population. The range and quality of what is available in India just does not compare with Home and, perhaps, more than anything else, the soldier lacks the girl friend he never seems to have any trouble over finding for himself in England—or Scotland.

We are making some progress with the provision of mobile cinemas for the camps in out-of-the-way places, but the E.N.S.A. situation has always fallen short of what we hoped for, and with the end of the war at Home there is not much prospect of any great improvement. The Army must depend on help from outside when it comes to providing substitutes for the cafes, restaurants and inns which are so plentiful at Home—for the very good reason that if we provide anything ourselves it is bound to have more or less of a military atmosphere, which is, of course, just what the man has left his camp or barracks to get away from.

Finally, there is provision to be made for those on leave away from their units. At Home, of course, the majority of men have a home or relations to go to, and there is virtually no problem, any more than there is for the sepoy in India, who also makes a bee-line for his own village. We can accommodate at any one time in India well over 40,000 British troops in the various forms of leave accommodation, and that does not include the purely private hospitality, which is considerable but over which we have no control and keep no check. With such numbers to deal with it is quite clear that we are bound to depend on big military leave homes for the bulk of the accommodation.

Hard words are said about these places—I have heard them called concentration camps among other things—and there is no doubt that a little more imagination would have made some of them more attractive to look at than they are, but they have been very considerably improved during the last 12 or 18 months in decorations, standard of food and also in the amount of liberty allowed and freedom from routine or restraint. There are at the moment two representatives from Butlins Holiday Camps touring our camps, and they are already full of suggestions.

When we consider that a man lives in these camps free, except for a small charge of less than -/8/- a day for petty extras, there is something to be said for them, and I think a number of men do very much enjoy their leave. Apart from leave camps we get a lot of help from the Y.M.C.A., Salvation Army and Toc H. and from hostels run by local hospitality committees, and there are also a number of boarding houses which are to some extent under our control and which receive subsidies to keep their charges down to a reasonable level.

That concludes a very rapid survey of what the Army is doing to help itself. Before dealing with the help which the W.V.S. can give us I would like to say a word or two in general terms about help from sources outside the army. You may perhaps wonder why the army should expect those outside to do what might be described as the army's own work. The answer, of course, has been touched on already. We are asking you to do something which we cannot do ourselves; to introduce in fact into the soldier's leisure hours that element of change, variety and novelty, which should be the keynote of the efforts of all outside workers.

The next point, on which I would like to be particularly clear, is that the final responsibility for the welfare of his men rests with the commander, however large the force or small the unit. I don't say that all commanders are always as good at it as they might be, but, from whatever sources he draws his help, he finally is responsible.

Then there is the need for the Army to put out better information as to what they need, and when and where they need it. The W.V.S. or any other body of helpers cannot give of their best unless they are kept properly informed; and when they are kept informed, perhaps they may help us to convince others that the Army is not really quite so unmethodical and muddle-headed as a lot of people think we are.

Equally there is the importance of everyone who is concerned in helping us knowing as much as possible about us and our ways. You will need assistance from us, for example, in transport and in supplies. There is a proper way to set about getting them and you will help everyone, including yourselves, if you follow it. Also if you know the right person to ask you can approach him direct and give the welfare officer's telephone a well-earned rest.

The next problem is the need for better co-ordination. We will try to secure it on our side, and we ask you, on yours, to co-ordinate local activities as far as you can, so that commanders and welfare officers have one representative to deal with, and not half a dozen. I know, of course, that conditions vary all over India, and that it is not always easy to co-ordinate, but I was very much struck the other day by a statement addressed by Lord Louis Mountbatten to a Conference held to co-ordinate action by certain philanthropic bodies. He was appealing for unity of effort and this is what he wrote:—

"I am assuming, of course, that your Societies are out to give me all the help they can, and will not allow any personal prejudices to stand in the way of giving my forces the best service possible.

"I have had to face up to the same problem of integration in many other fields In each case the more we have been able to establish the common-supply, common-user system, the better have been the results."

Possibly the trouble lies in the fact that those who have worked hard in the early days to put some activity on its feet dislike the idea of seeing it swallowed up as part of a larger organization, and so losing its identity. Lord Louis' argument is, however, unanswerable and I might mention that he was careful to add that he would make certain that individual acknowledgment was given to all who helped him.

To turn at last to some suggestions as to what the W.V.S. can do to help. I must apologize for including much that I know from personal experience is being done already, but I feel it is more satisfactory to present a complete picture.

In regard to the welfare of the soldier's family, as far as the British soldier is concerned, we have now very much increased the number of S.S.A.F.A. and S.S.A.H.S. bureaux, and we have a wholetime representative of each at G.H.Q. I have addressed them and also the W.V.S. to suggest that in order to enlarge their activities, they should let the W.V.S. have for circulation to all branches a note on the work of the two Societies, so that any of your workers coming in touch with cases needing assistance can at any rate advise and direct the man, or woman, to the appropriate bureau. For Indian troops we need the help of any women who are willing to assist with families, as for obvious reasons men workers are not acceptable.

Work in hospitals is of very great importance. The activity of those who are not whole-time workers of the Indian Red Cross has been defined by your Society's agreement with them, and it is unnecessary for me to elaborate it except to say that I hope that your workers will take advantage of the terms of that agreement, and take up work wherever the Red Cross are short-handed.

Anything you can do to help troops on railway stations or docks is a very practical contribution to welfare. It is arduous work, and in many places you need an all-round-the-clock service which makes very heavy demands on your available workers, but there is no doubt that to the soldier traveller with perhaps another 24 or 48 hours of discomfort ahead of him, a really good cup of tea and a few cheerful words have a value out of all proportion to the trouble it takes to provide them. The Army is now making proper provision for hot meals at various stations and I suggest the W.V.S. can give very considerable assistance in seeing that the meal rooms are made bright and attractive, and also by having one or two workers on duty at the rush hours.

Welfare within the unit lines or barracks is very much the C.O.'s care, and for various reasons there are obvious limits to the amount of work you can do. The most valuable contribution is, I think, this business of liaison between the troops and the contractor in the canteen, to suggest improvements and new ideas, and to cast a practical eye over the kitchens to see that what is provided is of good quality, well-cooked and attractively served. Most contractors are working with very greatly expanded staffs, and the majority of their so-called managers are ignorant and lacking in experience. I would suggest that one very important point to get straight, if you are to see any practical results from your labours, is the machinery for getting effective action taken on your suggestions and complaints. In other words, the servants must all realise that what you say has a kick behind it—literally perhaps, as well as metaphorically. And if you want backing, say from the Medical Officer over enforcing a high standard of cleanliness, make sure that your inspections and his are done together, and not at separate times.

Men out on pass for the evening and men on long leave, I think really come under one heading as far as the W.V.S. are concerned with helping to entertain them. Here your outstanding value lies in your ability to provide that element of feminine society which otherwise is almost completely lacking in the soldier's daily round. It matters not really whether he meets you as a worker in a canteen, at a dance, or when he comes as a guest to one of your houses; the mere fact that he can meet and talk to you is everything, and it may very well happen that he will be more likely to unburden himself of his personal troubles to you than to an unsympathetic Sergeant-Major, so it is important that the W.V.S. should have a good working knowledge of how to set about putting matters right.

The W.V.S. are also, I know, giving us invaluable assistance by acting as our booking agents for leave in all types of accommodation other than purely military leave camps, and also, of course, in taking men on leave into your own houses. I do not think I need enlarge on those activities.

There is perhaps one direction in which more might be done, and that is in placing your local knowledge at our disposal in suggesting excursions for the amusement and even the education of troops. I would include under this head visits to places of historical interest, beauty spots, factories or any other activity which will give the men some interest and insight into the life of the country they are serving in. And I most definitely include the Indian soldier as being interested in such expeditions.

By way of conclusion, then, I would say that there are four main points that perhaps we should on both sides concentrate on if we are to work together to better the lot of the soldier serving in wartime India.

First, W.V.S. workers should learn as much as they can about what the Army does to help itself, and who in the Army is the right person to apply to for help in all the various things they may need.

Secondly, the Army must take more care to keep the W.V.S. informed of current needs and forecasted changes and, when asked, to run short courses to explain to W.V.S. workers the mysteries of the local administrative machine.

Thirdly, we ask the assistance of the W.V.S. in co-ordinating the activities of all the voluntary workers in their area, so that resources are pooled and what does exist is used to the best advantage.

Finally, I would emphasize again that the essential role of the W.V.S. is to fill those three very important needs that the Army can never satisfactorily meet from its own resources: variety and change from the military atmosphere, local knowledge, and the blessing of a little feminine society.

ORGANISING A TATTOO AND PAGEANT

BY WING COMMANDER L. SHAFFI, O.B.E.

WITH the defeat of Germany and the fast approaching end to the Far Eastern War, our minds inevitably turn to thoughts of Tattoos and Pageants glorifying the magnificent deeds of our Fighting Services. Indeed, there is no better method to celebrate a momentous event than by a military spectacle of this kind.

When the final "Cease Fire" is sounded, there will doubtless be many officers in this country who will be detailed to arrange such displays with the resources in personnel and equipment available locally. It is hoped that this short article on the subject may prove of some assistance to such officers when the time comes.

It is, of course, quite out of the question to lay down any hard and fast rules. There are, however, a number of points which should certainly be applicable, no matter how the Tattoo programme is made up.

One of the most important items is the site. How many people appreciate that the setting of a recently held Tattoo at the Irwin Stadium, New Delhi, presented one of the most picturesque environments in the whole world? The view of the Battlements of the *Purana Qila* in the background, with the glowingly colourful uniforms of the Indian Army of yester-year, presented a picture not easily forgotten.

We must be sure, therefore, in selecting a site that it is in every way suitable. Not only should the background be picturesque; the site itself must contain ample seating accommodation for spectators, if possible so banked that all may view the proceedings in the area with ease. The area of the ground available should not be less than 400 yds. square, while green grass lends much to the effectiveness of the scene. The perimeter of the ground, if possible, should be dotted with colourful flags of all Allied Nations. Bunting helps a great deal.

The performers' entrance, facing the spectators, must be screened off. For this purpose it is usually possible to hire *kanats* locally from the bazar. A row of screens about 8 feet high should mark the extremity of the ground, behind which should be a space not less than 100 feet in depth for the marshalling of events. There should be a gap of about 25 yards in the centre of this backcloth. Set forward and centrally, there should be another row of screens completely covering up this gap. This arrangement forms an effective entrance and exit. The distance between the back cloth and the forward screens should be about 50 feet. Green is probably best, but white or other coloured screens may be used with good effect, depending on the predominant colours of the uniforms, etc., being worn.

THE PROGRAMME.

The choosing of items for a Tattoo sometimes presents some difficulty. It requires careful consideration before the programme is finally decided upon. In no circumstance should the programme in its entirety last longer than an hour and a half. No item, however good, should take longer than twelve minutes. The average length of an item should be between seven and ten minutes in order



Above : RHYTHMIC TORCH SWINGING BY THE BOYS COMPANY OF THE 1ST PUNJAB
REGIMENTAL TRAINING CENTRE

Below : PARADE BY MASSED MILITARY BANDS





Above : MOTOR CYCLISTS OF THE INDIAN SIGNAL CORPS

Below: P. T. EXERCISES BY THE ROYAL INDIAN NAVY



that the spectators may feel at the end of each item that they would have liked to see more of it. The cumulative effect of the whole programme should be that it was excellent, but far too short.

Each item must follow in quick succession, entering the arena by one side of the back-screens while the preceding item makes its exit by the other. There is indeed no need to wait until the last man is out of sight before commencing with the next item.

No Tattoo would be complete without a band and, if possible, a Military Brass Band. This should usually be the first as well as the last item on the programme. If more than one band is available, so much the better. It is impossible to have too many. In some stations bands may not be available and, while this would detract considerably from the performance, loud-speaker recording can be used if there is no alternative.

Ten minutes at the commencement of the Tattoo devoted to marching and counter-marching by the band, puts the audience in a receptive frame of mind and starts off the show with a swing. If sufficiently good buglers are available, it is effective to commence with a Fanfare of Bugles lasting not longer than three minutes, including the time taken to get into the arena and out. For this item up to 50 buglers can be used to great advantage. Immediately the buglers are out of sight, the Military Band should open up from behind the screens and march out from both sides of the *Kanats*, joining up down the centre of the arena. Incidentally a 30-foot flag-pole flying the Union Jack in the centre of the forward screen is most effective. The larger the flag, the better.

A very useful point to remember about a Tattoo is that every unit taking part in the show can rehearse its own item at its own unit, coming together only three or four times when fully rehearsed for co-ordination and dress rehearsals. Because of this fact, very little time is wasted in arranging a Tattoo, each unit practising its own item or items at a time convenient to itself. The organiser should visit each unit once or twice at the very beginning to see that it is proceeding on the right lines, after which visits work can be carried on by a unit officer, detailed for the purpose.

Each item included in the programme must have movement. Static items are always less interesting and slow down the action of the performance. A purely hypothetical programme might be as follows:

1. Fanfare of trumpets.	..	2 minutes.
2. Marching and Counter-Marching by Military Brass Bands	..	10 „
3. Drill Display (with music, if possible)	..	7 „
4. Display by Engineers	..	10 „
5. P.T. and Horse Work	..	10 „
6. A Humorous Item	..	7 „
7. Flaming Torch Swinging	..	7 „
8. A Pageant	..	10 „
9. Retreat	..	10 „
10. Finale.		
11. The King.		

The suggested pageant may be any suitable item, but it should be strikingly colourful. It might perhaps represent the evolution of the army from early times, showing the changes which have taken place in the uniforms and equipment in vogue in the services from time to time. It is surprising what a unit

tailor can do, given adequate references. It would naturally not be possible to procure the best possible cloth, but white drill dyed to the appropriate shades is most effective.

Again, if facilities exist the storming of an old fort would be most interesting. Such an item would require "props" to represent an old fort. Small charges electrically operated by a local Sapper unit lends much to the realism of the scene. It is possible to think of dozens of suitable subjects for this item, but the subject chosen should, if possible, have some local appeal.

LIGHTING

In such a brief article it is hardly possible to deal exhaustively with the subject of organising a Tattoo and Pageant, but it is hoped that the above suggestions will be of assistance to the would-be showman. The subject has only been touched very briefly, but the question of lighting, etc., must also be given attention if it is intended to hold the performance at night. If search-lights or flood-lights are available, it is very impressive to start the show off from retreat, having all the other items by artificial light, but in this case the lighting must be good. About half a dozen 10-inch lion lights are adequate or, if an Air Force Station is nearby which can supply a landing-field search-light, so much the better.

A military spectacle such as is envisaged is particularly suitable to this country, but it must be well done as the standard of performance of this type is already very high, due to such long established ceremonies in India as *Dasara*, which incidentally is well worth witnessing by anybody who has not seen it so far.

There can be no doubt that the annual performance at Aldershot has done much for the popularisation of the British Army, while the Hendon Display and Trafalgar Day celebrations keep the Royal Air Force and the Royal Navy in the public eye. Such annual institutions, it is felt, should also be organised in India after the war, so that the glorious deeds of the Indian Fighting Services during the present war should be recalled at least once a year, while it would do much to stimulate interest among the right type of young men in our Army, Navy and Air Force.

MINEFIELDS ON FRENCH COAST

"The French shore is still covered with German minefields. There are about 100,000,000 such mines. It is calculated that the cost of the removal without charts would be in the neighbourhood of 20,000 lives. Even with the plans the cost would be great, for it was reported that 12 disarmed Germans were killed while engaged in demining with charts an area outside Dunkirk.

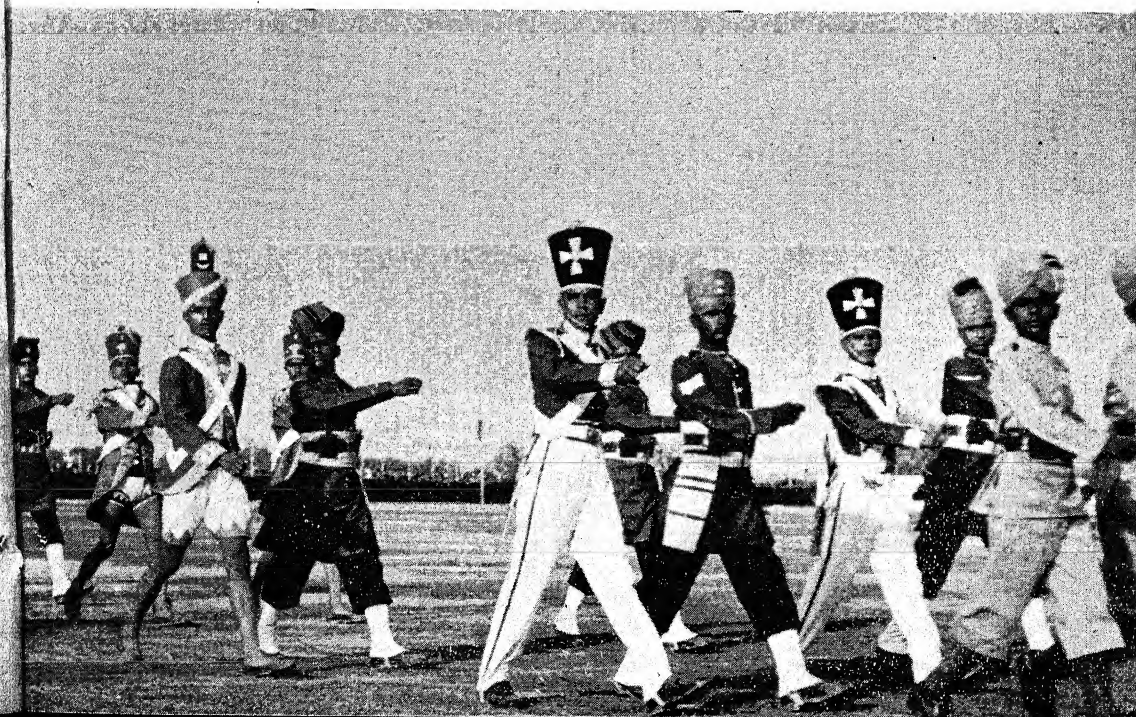
"French demining volunteers have already suffered heavy casualties, but civilians and children are being killed daily. In Finisterre 250 children have been killed by mines hidden in rocks.

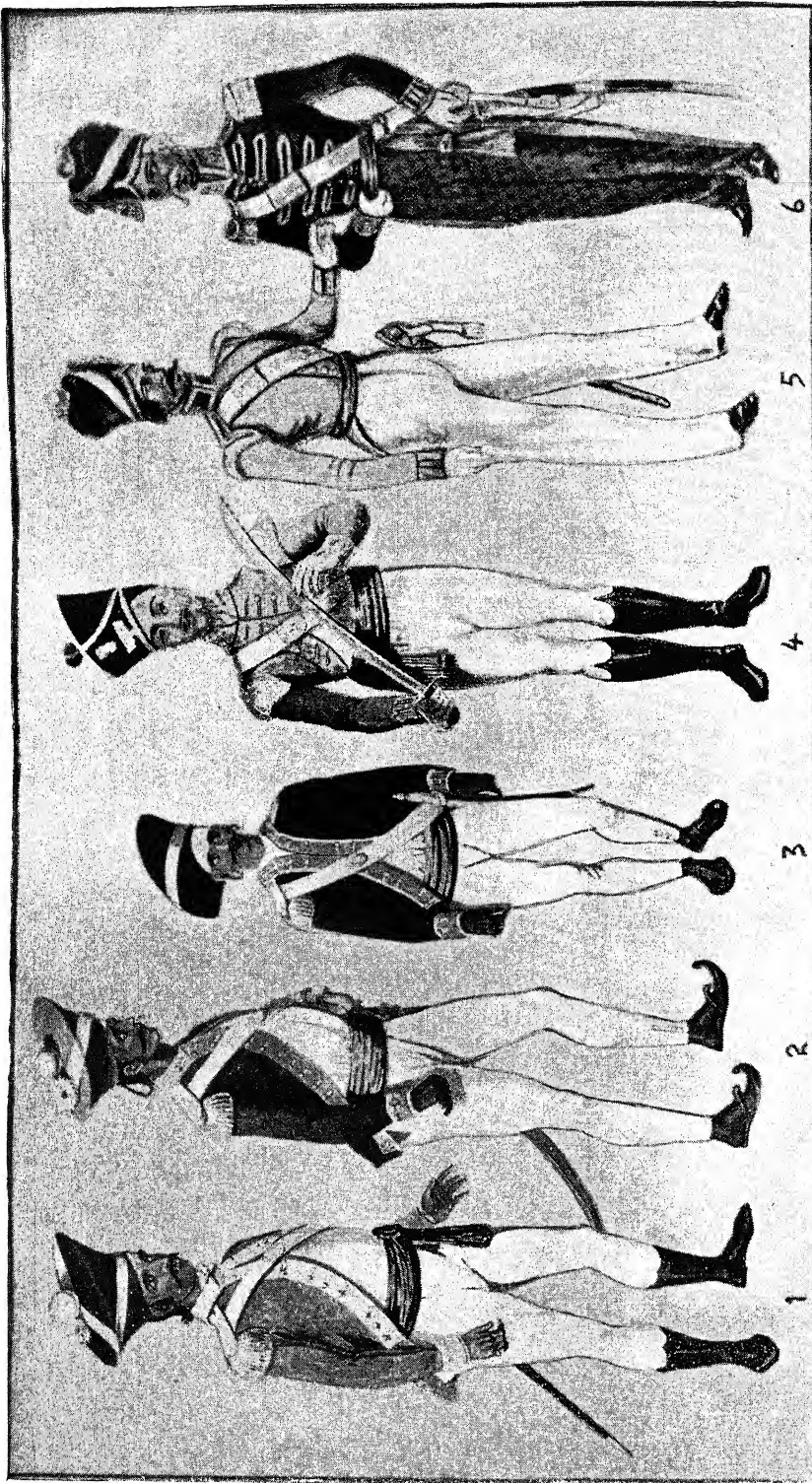
"It is expected that the demining of French soil will not be completed for several years. The majority of mines will be fairly easy to find with electromagnetic detectors as soon as a sufficient supply of them is available; but mines made of wood, glass, bakelite and cardboard cannot be found in this way."—*"Manchester Guardian."*



Above : A SKILFUL MOTOR-CYCLIST

Below : MARCH-PAST OF BOYS FROM REGIMENTAL TRAINING CENTRES, WEARING UNIFORMS FROM 1900 ONWARDS





~ NATIVE OFFICERS OF H.E.I.C.'S ARMY, 1792 - 1845. ~

BADGES OF RANK OF VICEROY'S COMMISSIONED OFFICERS

BY MAJOR N. P. DAWNAY.

THE HONOURABLE the United Company of Merchants of England trading to the East Indies was formed in the year 1702. The Armed Forces of the Company sprang originally from guards intended as much to enhance the dignity of the chief officials as to protect the factories and trading posts. By about 1748, however, the Armies of the Presidency of Fort William (Bengal), or Fort Saint George (Madras), and of Bombay had become separate organised forces.

Until the Regulating Act of 1773, each Presidency was independent of the others, but that Act placed Madras and Bombay under the check of the Supreme Council, in Calcutta, which was responsible to the Honourable the Court of Directors for Affairs, in London. The Provincial Commanders-in-Chief were not, however, abolished, and the presidency system was continued, even after the assumption of control by the Crown, until 1895, in which year the Indian Army became a single entity.

The titles Risaldar, Subadar and Jemadar and others now forgotten were in use in the earliest days, though the generic term applied to these Officers has varied. They have been styled Warrant Officers, Native Commissioned Officers, Native Officers, and Indian Officers. Throughout this paper, the contemporary title will be used.

The evolution of the distinctions of rank of the Viceroy's Commissioned Officers is divided into two periods: the Golden Age, which ended in about 1860 with the abolition of the coatee and the epaulette; and the Utility Age, which follows the gradual development of the modern fighting dress.

The Golden Age.—One of the marks of the Good Soldier has always been smartness in turn-out, so that it is but natural that, in an age when the normal masculine attire was colourful, the soldier, too, should be gaily clad. Though the term Golden Age is no exaggeration, we must not be too hasty in condemning the military dress of those days. Rather, let us remember that what to-day would be discarded as too uncomfortable for a fancy dress dance, was the battle dress of the men who fought at Seringapatam and Waterloo. Nor, indeed, were all the colourful details wholly useless. The wing, which for Officers was covered with chain, served as a protection to the shoulders against sword-cuts.

Minutes of Council, dated at Fort William, 7th May, 1781, record various measures which were taken to improve the lot of the Sepoy. The Board was "pleased to resolve . . .

"That the Annual Cloathing given to the Native Troops shall be delivered to them every Year in the Month of December; and made up of Cloath, for the different Ranks, of the following Qualities, viz.,—The Subadars coats of super fine Cloath laced with gold or silver, the Jemantdaars of 2nd ditto laced with silk lace, the Non-Warrant Officers of Aurora and the Sepoys of Lacca, the same as now used.

"That . . . the Warrant Officers are to provide themselves with Regimental Turbans, &c."

This distinction in the quality of the cloth and the nature of the lace lasted throughout the Golden Age.

Captain Innes Monro, 73rd Highlanders, in his "Narrative of the Military Operations against Hyder Ali Cawn, 1780—1784" (1789), tells us that the Warrant Officers of the Madras Army wore Light Infantry jackets "made of scarlet cloth, with tinsel epaulettes, light drawers all the way down to their ankles, and a large, crooked scimitar by their sides." The Other Ranks wore shorts with blue borders to the legs.

Further contemporary light is thrown on the dress of the Native Commissioned Officers of the Madras Army by Captain Charles Gold's "Oriental Drawings," which contains two coloured prints of special interest. Unfortunately, the copy in the Imperial Secretariat Library, New Delhi, has been rebound and, in the process, guillotined, so that neither of these plates shows any date. Such of the other prints as still bear a date were published in London between 1799 and 1803 and, by a process of exclusion, it is possible to fix the date of publication of the first as 1799, and of the second as 1802 or 1803. The originals were painted in India between 1792 and 1798.

The first print shows a Native Commissioned Officer of Infantry, while the letter-press informs us that he is a Subadar (Fig. 1). His coatee is scarlet with yellow facings, and the pantaloons white. The half-boots are black; the turban, blue. From the Minute of Council of 1781, we may deduce that the decoration on the turban, the buttons and button-holes and the epaulette are silver, for in the print they are uncoloured.

The second print depicts two Native Commissioned Officers and a Sepoy of the Gun Lascare Corps (an ancillary to the Artillery). From a comparison of these figures, it can be established that the uniform of the Corps was blue with scarlet facings, and that the lace and button-holes were yellow or gold according to rank. The two Native Commissioned Officers are wearing coates, long white pantaloons and footgear of brown leather. Both are wearing crimson sashes. One has a crimson head-dress (Fig. 2); the other (Fig. 3), one of blue.

It should be noted that the white mark on the forehead of the latter is a caste-mark and not part of the turban. Captain Gold writes, "The distinguishing part of the Serang's dress is a red turban and crimson silk sash, which the other Commissioned Officers also wore in conformity with the British service. All the non-commissioned officers and Lascars wear blue waistband and turban." These figures represent, therefore, a Serang and a First Tindal. A Serang was the equivalent of a Subadar (though he ranked as a Temadar; a First Tindal, that of a Temadar (but inferior in rank). In the original print, the epaulettes of both these Officers appear identical, the fringes apparently of bullion rather than silk. The decoration on the turbans is white or silver.

In the Bengal Army, pantaloons and half-boots were not introduced until 1801, while sashes do not appear to have become part of the Native Commissioned Officer's dress until the end of 1816, for, in the "Bengal Military Regulations, 1817" (which incorporate current orders up to the end of 1816), there is a footnote, "N.B.—Sashes are now worn by Native Commissioned Officers and Havildars." This enables us to fix the date of a uniform shewn in a coloured print, dated 1817, which forms the frontispiece to "An Historical Account of the

Bengal Native Infantry, 1757—1796," by Captain John Williams (John Murray, London, 1817). This print (Fig. 4) represents a Subadar, 1st Battalion, 21st Bengal Native Infantry. The round jacket is scarlet with yellow facings and silver ornamentation. The wings are scarlet, laced with silver.

In the Proceedings of the Army Clothing Board, Fort William, on 22nd November, 1817, a Loss Statement, relating to an accident which took place at the end of 1816, was considered. This contains four items worthy of mention :—

- "4 Jackets for Grenr. Soubahdars and Jemahdars,
- 15 Jackets for Battalion Subadars and Jamadars,
- 4 Pairs Silver Epaulettes for Grenr. Native Officers,
- 15 Silver Epaulettes for Battalion Native Officers."

It is apparent, therefore, that though the jacket varied with the rank of the wearer, the epaulettes were the same both for Subadars and Jemadars.

The differentiation of rank by means of the lace was not peculiar to any one Corps, for, in February, 1817, the Clothing Board rejected a proposal that both the Subadars and Jemadars of the Dromedary Corps (then being raised) should have silver lace. The grounds were that "Jamadars of all other Branches of the Service have only silk lace."

A little later in the same year, the Secretary to the Clothing Board wrote to the Adjutant-General, Fort William, that "the Commanding Officer of the Champarun Light Infantry requests that his Subadars may have silver lace . . . The Uniform of this Corps was lately changed . . . from Red to Green, and to be the same shape &c. as the Mountaineer Companies by which the Subadars have Silver Wings, and Black Silk Lace, a mark . . . sufficiently distinguishing."

A General Order to the Bengal Army by the Vice-President in Council, dated 28th October, 1817, instituted the rank of Subadar-Major. This new rank did not confer any increase in responsibility or power, but was purely honorific and was granted as a reward for long and distinguished service. It carried with it an increase in pay of twenty-five rupees a month. To add dignity to the position of these Officers, on 26th September, 1818, the Governor-General in Council "resolved that Subadar and Serang Majors of the Army should, in addition to their present uniform, be distinguished by wearing a pair of rich Epaulets." This expense was to be charged to the State, and a copy of the resolution was to be despatched to the Governments of Madras and Bombay.

Enclosed with a Letter from Court in October, 1819, was a Shipment List which mentions "Epaulets for Subadar Majors—Gold Straps with rich Gold Bullions for . . . Golundauze (Native Foot Artillery), Gun Lascars, and Pioneers." Native Infantry and Native Cavalry are shewn as wearing silver epaulettes. These apparently were of different designs, for they are listed separately.

The Madras Army adopted similar epaulettes, in 1820, for the Subadar-Majors of Infantry and Foot Artillery, while, in 1822, those of Horse Artillery and Light Cavalry were ordered to wear a gold-and-crimson sash. Other Native Commissioned Officers of the two latter Corps were directed to wear plain crimson girdles.

Another sidelight is thrown on the dress of the Madras Army in a Letter to Court from the Governor-General, written in 1821, in explanation of an unsatisfactory state of affairs which had arisen in the Clothing Accounts. It reads, "The cost of Epaulettes, which are furnished at Madras to all Native Officers of the Army, *viz.* Subadars, Jemadars, Serangs and Tindals, amounts to almost Rs. 4,000." In Bengal, however, the letter says, only Subadar-Majors were furnished with epaulettes. As the other Native Officers clearly wore them, they must have been required to pay for them themselves.

Another indication of the nature of the distinctions worn by the Native Commissioned Officers is contained in a Bengal General Order of 1827 drawing attention to the practice of Officers wearing unauthorised decorations in their caps. For Native Officers, this order prescribes "short Feathers, 6 inches long, red and white (for Infantry), white (for Grenadiers), or green (for Light Infantry)."

A letter from the Adjutant-General in 1830 permits the Native Officers of the Golundauze Battalions to wear the undress jacket, sword and sword-belt of the European Officers, "providing them at their own expense."

Prior to 1829, Captains and Subalterns of Battalion Companies wore only one epaulette, but in that year they adopted two. It appears that then, or shortly afterwards, the Native Officers followed suit, for, in the Proceedings of the Clothing Board in 1832, there is a reference to a return for the year 1830 from which a pair of Subadar's epaulettes had been omitted.

A series of coloured prints, under the title "Costumes of the Indian Army," was published in London by Rudolph Ackermann in 1845 and in the succeeding years. These give a very good idea of the uniforms of the Honourable East India Company's Armies at the height of their splendour. One of these prints, dated 17th October, 1845, was made from a sketch drawn in India by an Officer of 21st Fusiliers. It depicts two Native Officers of the Nizam's Army, one in 3rd Infantry, the other in the Foot Artillery.

The uniform of 3rd Infantry (Fig. 5) is scarlet with green facings, and the lace is either yellow or gold. The wings have green straps and scarlet crescents, and are laced. The fringe appears to be of bullion. The sash is crimson. The turban is dark blue with the decoration in yellow or gold. It is not possible to determine, however, whether the Officer is a Subadar or a Jemadar.

The uniform of the Foot Artillery (Fig. 6) is blue with scarlet facings, and the lace, by comparison with the figure of a Sepoy which is also shewn, appears to be gold. The trousers are blue with a broad scarlet stripe. The sash and turban are similar to those of the Infantry Officer. The epaulettes have gold lace straps, embroidered edges, and gilt or embroidered crescents. The fringes are of heavy gold bullion. It is probable that this picture represents a Subadar-Major.

Two other prints in this collection show Native Commissioned Officers of the Bengal and the Bombay Armies, and it is noticeable that the straps and crescents of their wings are covered with chain like those of the European Officers.

The Subadar of 21st Bengal Native Infantry (Fig. 4) is wearing a necklace which, in the print, is shown as yellow or gold. Whether this ornament bore any relation to his rank cannot be said, but, in an anonymous "History of 1st Sikh Infantry, 1846—1886" (1887), it is recorded that, in 1847, the full dress of the Regiment was a "red cloth jacket with yellow facings. The Native

Officers wore gold bead necklaces as badges of rank: Subadars, two rows; Jemadars, one row."

The Utility Age.—The Golden Age ended in England in 1855, as a result of the lessons learned in the Crimean War. In India, however, the Mutiny delayed any parallel changes, and it was not until some five years later that the old dress was completely abolished. Although it is true to say that the evolution of the present fighting dress dates from these times, not every garment which has been introduced has been remarkable for its usefulness. The worst seems to have been the Zouave jacket, which was copied from the French.

Before considering the actual distinction of rank, it would be as well to describe the principal types of coat with which we shall be concerned. Tunic is the technical name for the modern full-dress Infantry coat. This garment has not altered materially since its introduction, except in details such as the shape of the collar and cuffs, and the adornments to the shoulders.

In general appearance, it resembles the patrol jacket, but has no pockets and more buttons. Normally, the Infantry tunic was (and is) red or scarlet, with the collar and cuffs of the colour of the Regimental facings. Until the beginning of this century, the quantity of gold or silver lace increased with rank but, since then, the Regimental Officers' uniforms have only been differentiated by the actual badges of rank.

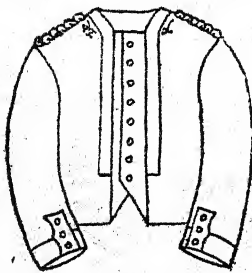


Fig. 7

The tunic was quickly ousted by the Zouave jacket. This, in its true form, is a short collarless coat, open in front. Underneath is worn a waistcoat. In the garment which was devised for the Infantry (Fig. 7), however, the two were combined in one. The coat itself was red or scarlet, a little over waist-length, while the illusion of the waistcoat was created by means of two broad strips of cloth of the colour of the Regimental facing which, running the length of the jacket, buttoned together forming a breast-piece. The cuffs were round, with a slash and three buttons. The lacing ran round the neck and down the fronts to the waist. On the shoulders were crimson shoulder cords. The Zouave jacket was extremely tight, and it was a common complaint that the breast-piece formed a very useful aiming-mark for the enemy.

The Norfolk jacket, which was the forerunner of the modern service dress jacket, was also suitably coloured, and had an upright, or a stand-and-fall, collar. It was worn by the Mountain Artillery.

In the Cavalry, either an *alkhalik* or "a frock without a collar" was worn. An *alkhalik* (Fig. 8) is a collarless surcoat open at the breast, the gap being roughly oval and extending from the shoulders to a little above the waist. The gap is filled by a plastron, called the *purdah*, which fits inside the body of the garment. The skirt, which reached within three inches of the knees, was slit before and behind. It is still worn in the full dress of some Corps to-day.

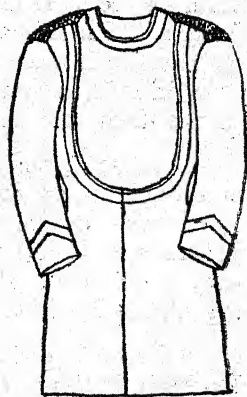


Fig. 8

From the nature of the decoration prescribed for it, the "frock without a collar" (Fig. 9) appears to have been a form of *kurta*, resembling the modern bush-shirt, but closed in front below the waist. This garment, too, is still worn.

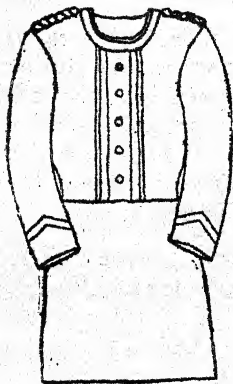


Fig. 9

On 14th October, 1863, a General Order was published describing the dress of the Bengal Cavalry. The Native Officers were ordered to wear, according to their Regiment, either an *alkhalik* or a "frock without a collar." These garments were edged with gold or silver lace "round the neck, breast, and cuffs." For Risaldars and Ressaidars, the lace was one inch wide; for Jemadars, three quarters of an inch. The arrangement of this lace, reconstructed from photographs, is shewn in the somewhat conventional illustrations. On the shoulders were "metal shoulder cords of curb-chain or chain mail."

Proceedings of the Government of India in the Military Department, on 27th February, 1874, dealt with various proposals to alter the Infantry uniform, substituting the tunic for the Zouave jacket. It was also suggested that certain distinctions of rank, similar to those worn by the European Officers, should be adopted for the Native Officers. For a Subadar-Major, the device was to consist of two chevrons of gold lace (point upwards), half an inch wide, with a line of round eyes of gold Russia braid tracing, surmounted by an Austrian knot above them (Fig. 10); for a Subadar, a similar device, but with straight tracing; and for a Jemadar, a device similar to that of the Subadar, but with only one chevron. The collar of the tunic was to be one inch high, laced round the outside with gold lace, half an inch wide, and along the collar seam with gold Russia braid. A Subadar-Major was to wear two stars (similar to those of the Officers) on the collar; a Subadar, one; and a Jemadar, no badge.



Fig. 10

None of these proposals was adopted, and the Zouave jacket remained.

At this time, a Committee was sitting in Simla, engaged in revising Standing Orders. Its contribution to the Proceedings tells us that it had devised a "uniform for the ranks of Subadar Major, Subadar and Jemadar with the respective badges." Unfortunately, however, it is not recorded what these were, but, as no mention is made of any badges being already in existence, it would appear that, in 1874, no system of badges (in the sense of self-contained devices attached to the dress) had been evolved.

In 1877, however, an amendment to the "Indian Clothing Code, 1855" was published in Standing General Orders. This informs us that a Subadar wore "gold double swords," and that a Jemadar had a "gold single sword." Where these badges were worn is not stated; nor has it been possible to trace a copy of the Code. Possibly, these were the products of the labours of the Standing Orders Revision Committee.

Proceedings in the Military Department, in 1880, mention that in the Mountain Batteries of the Punjab Frontier Force, similar badges were worn on the collar of the Norfolk jacket. Those of a Subadar are described as "double or crossed swords."

A photograph of the Officers and Native Officers of 7th Duke of Connaught's Own Bengal Native Infantry [now 3rd Battalion, 7th Rajput Regiment (Duke of Connaught's Own)], taken in 1883, shews the design of the sword badges and the



Fig. 11

position in which they were worn. The badge of a Subadar (Fig. 11) consisted of two native swords crossed, points and edges uppermost; that of a Jemadar, a single sword set horizontally, edge upwards, and pointing outwards. Both badges were worn in pairs, parallel to the lace round the neck, and in the position corresponding with the collar-bone. The illustration of the Zouave jacket (Fig. 7) was made from this photograph, and shows the exact positions.

In May, 1885, a khaki Active Service Uniform for Officers was introduced in India, and, in September of the same year, the Native Officers of the Bengal Infantry were ordered to wear the same uniform with the sword badges in brass on the shoulder straps.

Detailed orders regarding the dress of Native Officers are contained in "Army Regulations, India, Vol. VII—Dress, 1886," and in them badges of rank (as distinct from variations of lace) are described for the infantry of all three Presidencies. In the full dress of the Cavalry, however, only variations of lace (different in each Presidency) were prescribed.

The Bengal Cavalry wore a loose frock of Regimental colour with a cuff of the Regimental facings. This garment was a *kurta*, trimmed in the same manner as in 1863.

The Madras Cavalry wore a grey serge *alkhalik*, garnished with silver lace three quarters of an inch wide. For a Subadar-Major, on each side of the lace (except round the neck, where it was on the lower side only) ran a line of eyelets of silver Russia tracing braid. The lace on the cuff formed a chevron (point upwards) with a flowered knot of tracing braid above and below. For a Subadar, the tracing on the inner (or lower) side of the lace was straight. For a Jemadar, the tracing on both sides of the lace was straight, and the flowered knot in the lower angle of the chevron on the cuff was replaced by a crow's-foot knot (Fig. 12).

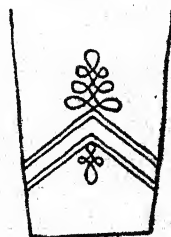


Fig. 12

In these regulations, only the Madras Cavalry are mentioned as wearing "distinctive badges of rank" on the khaki blouse. Though it is not specified what form they took, it is probable that they were the same as those of the Infantry. The lace designs of the full dress would have been difficult to adapt to a shoulder strap.

The Bombay Cavalry had a dark green serge blouse. Rank was distinguished by a "sleeve ornament of gold tracing braid round the cuff, pointed up in front, five inches in height." For Risaldars, the ornament was formed of three lines of tracing; for Ressaidars, of two; and for Jemadars, of one. There was a light, half an inch wide, between the rows, the lowest of which was two inches from the end of the sleeve.

The Cavalry of the Punjab Frontier Force retained the lace distinctions of 1863.

The badges of rank of the Infantry also differed slightly in detail in each Presidency. In Bengal, a Zouave jacket with a collar was worn. For Native

Officers, gold lace, three quarters of an inch wide, ran round the neck (under the collar) and down the fronts. Subadar-Majors are not mentioned, but Subadars and Jemadars wore the sword badges on the collar, except in 1st Gurkha Light Infantry and in Regiments dressed in green, where the swords were replaced by *Kukries*.

In Madras, the Infantry wore collarless Zouave jackets, laced with gold in the same way as in Bengal. The badges of rank, in gold embroidery, were placed a quarter of an inch below the lace, round the neck on each side of the breast-piece. A Subadar-Major wore a crown; the other Native Officers, the sword badges. On the khaki jacket, these badges were worn on the shoulder.

The Bombay Infantry had a scarlet tunic with the badges of rank on the collar. These, too, were the same as in Bengal, except that a Subadar-Major wore a crown and crossed swords, side by side. According to "Army Regulations, India," the badges were in gold, but "Clothing Regulations, Native Army, Bombay, 1886," describe the crown as gold and the swords as silver. Probably only the blades were silver.

The Baluch Regiments of the Bombay Army had rifle-green coats with scarlet facings and the badges of rank on the collar. A Subadar wore two silk embroidered stars; a Jemadar, one. It seems likely that the stars were embroidered in black, of the same design as those formerly worn on the collar by the European Officers of Rifle Regiments.

Proceedings in the Military Department, in 1887, record a suggestion from the Bombay Army that the crimson shoulder cords of the Native Officers of Infantry should be replaced by cloth shoulder-straps bearing the badges of rank. To lend weight to this argument, a specimen of the collar worn by the Subadar-Major, 2nd Grenadiers, was produced. Rightly described as preposterous, this had on it, in addition to the crown and the crossed swords, a Grenade, the Prince of Wales's Plume, and the Sphinx and "Egypt." The Bombay Army was informed that, in any case, a new system of badges of rank for Native Officers was under consideration. This was to be on the shoulders, which would enable the Grenadiers to wear the other badges more conveniently.

The proposals were sanctioned and, on 15th November, 1887, a General Order to the Bengal Army directed that a Subadar-Major of Infantry should wear a silver metal crown on each shoulder strap; a Subadar, two silver metal stars; and a Jemadar, one. The crown was of the pre-1901 pattern, with the arches countersunk: the star, of the type still worn in service dress to-day.

In the same year, the Bengal Cavalry and the Bengal Lancers adopted three silver stars for a Risaldar-Major; two, for a Risaldar and a Ressaidar; and one, for a Jemadar. Within two years, almost every Regiment had adopted the new badges. "Army Regulations, India, Vol. VII, 1891," show only the Cavalry of the Punjab Frontier Force as wearing the lace distinctions. In a photograph of that Corps, taken in 1897, however, the Risaldar-Major is wearing three silver stars on the shoulder chains; the Risaldars and Ressaidars, two; and the Jemadars, one.

The 1900 Edition of these Regulations incorporates the developments of the preceding 14 years in one paragraph, prescribing three stars for a Risaldar-Major (except in the Hyderabad Contingent—a crown); a crown for a Subadar-Major (except in the Madras Lancers—three stars); two stars for a Risaldar, a Ressaidar, and a Subadar; and one for a Jemadar. The pattern of crown was changed in 1901 to that now used.

In 1903, an India Army Circular made the crown the badge for all Risaldar-Majors and Subadar-Majors.

The title "Indian Officer" was introduced in 1911 and remained in use until the creation of the Indian Commissioned Officer, in 1935, when the style Viceroy's Commissioned Officer was evolved.

The only modification which has been made to the badges settled in 1903 was occasioned by the present war and the difficulty, in orders of dress such as battle-dress and bush-shirts, of distinguishing the Viceroy's Commissioned Officers from other Indian Officers. In 1941, therefore, it was ordered that, on shirts, bands of braid, "red-yellow-red," would be worn across the shoulder straps: Risaldar-Majors and Subadar-Majors, three bands with a miniature silver crown on each; Risaldars and Subadars, two bands each with a miniature silver star; and Jemadars, one, with a miniature star. On garments with upright collars, the badges of 1903 were to be retained. In 1942, the use of the new badges was extended to greatcoats and battle-dress, so that, in effect, they are now worn in all authorised orders of dress. At the beginning of 1944, the silver crowns and stars were replaced by similar ones of khaki worsted.

More Churchillian Phrases

1942. January 1.—"Here is to a year of toil, a year of struggle and peril and a long step forward towards victory."

May 10.—"I hail it as an example of sublime and poetic justice that those who have loosed these horrors on mankind will now feel the shattering strokes of just retribution."

November 10.—"We have a remarkable and definite victory (at Alamein). A bright gleam has caught the helmets of our soldiers and warmed and cheered all our hearts. Now this is not the end. It is not even the beginning of the end. But it is perhaps the end of the beginning."

1943. May 19.—"In North Africa the unexpected came to the aid of design and multiplied the results; for this we have to thank the military intuition of Corporal Hitler."

1944. February 22.—"There is no doubt that the Germans are preparing new methods of attack, either by pilotless aircraft, possibly rockets, or both."

June 6.—"The first of a series of landings in force upon the European continent has taken place."

1945. January 1.—"Before many months have passed the evil gang that has too long dominated that unhappy Continent will be wiped out."

May.—"The evil-doers are now prostrate before us. . . . We seek nothing for ourselves, but we must make sure that those causes for which we fought find recognition at the peace table in fact as well as in word; and, above all, we must labour that the world organisation being created at San Francisco does not become a shield to the strong and a mockery to the weak. It is the victors who must search their hearts in their glowing hours and be worthy by their nobility of the immense forces that they wield."

A LETTER TO MARS—IN 1960*

BY LIEUT.-COLONEL J. N. CHAUDHURI, O.B.E.

SIR,—I have the honour to give below a brief report on India's Army as required by you. A detailed report will follow soon.

The Indian Army consists of a Regular Army 1,500,000 strong and a Territorial Army 4,000,000 strong. As in our Army, the former provides the nucleus of the Armed Forces plus the training cadre, while the latter is available in the event of any national or planetary struggle.

Enlistment in the Army is open to all citizens of India who can fulfil the educational and physical standards required. There is no class, tribe or religious distinction of any sort. No unit or sub-unit is entirely composed of any particular class or tribe. Any man can enlist in any unit, provided the vacancies exist, on a voluntary All-India basis. This system has many advantages. The Army is national in character and so of great value in the preservation of internal law and order. Its educative force, particularly as an example to the rest of India for a way of living, is very powerful.

As in the past, the man-power question does not arise, as there is the whole of India to recruit from. A tremendous reserve of man-power all over India has been formed, all speaking the same language and available for expansion or to train Territorials. Apparently in the 1939-45 war, some units had to remain static or be disbanded owing to the old system of class composition. Certain classes were over-recruited and no replacements were available.

Although the Indian soldier has a real regard for his religion, no religious difficulties arise. Every man is allowed to worship as he pleases and every facility is given him in this matter. Religious teachers for all the main religions are attached to formations on a Brigade basis. Their selection and appointment is a matter of considerable care. As a result they are broadminded, educated and well-paid men, who do much towards the morale of the soldiers.

The feeding problem, which was an integral part of the religious problem, has been solved. On enlistment a man states he is prepared to eat from a non-communal cookhouse, though he is not required to eat food which his religion forbids him to do. In each sub-unit there are two cookhouses. One serves meat, while the other is vegetarian. The soldier has to state in advance from which he is going to eat. In both cookhouses, atta and rice are cooked in the proportions required; both are simple to cook.

At first, I am told, there were a certain number of digestive upsets. Some liked their food spiced, others not so spiced; some liked their food rich, others wanted it simple. A basic formula has been evolved, however, as a result of experience, while the system of recruiting through Army Boys' Schools means that digestions are conditioned early to the Army diet. Excellent canteens exist which provide the occasional change of flavour to those who require it.

*Considerable changes have occurred in the Indian Army even in the last half century, and it is certain that more will occur in the next fifty years. In this letter, written in 1960 by an imaginary Liaison officer of the Martian Forces to his C.G.S., the author is reporting on India's Army of that year. Many may declare that the advances reported by the author are idealistic, but none can deny that the benefits they would confer on Country and Army alike would have far-reaching effects on the population as a whole and would continue to build on the fine traditions of the past.—Ed. U. S. "Journal".

The language problem, about which you asked me particularly to enquire, has been dealt with in an interesting manner. When the new-style Indian Army was formed, owing to the number of English technical terms in use, Basic English was made the language of the Indian Army. In view of co-operation with other Commonwealth Armies, the introduction of Basic English also found favour in Commonwealth circles. In use, however, it was found too difficult to teach and too cumbersome to use. Hence Urdu in its proper form *i.e.*, as a language of the camp, was brought back. The technical terms still remain English, while all writing is done in the roman script, which is in almost universal use on Earth. In actual fact, due to the excellent educational system, sixty per cent. of the men are bi-lingual. This bi-linguality is encouraged, as a man who speaks English well is sent on short attachments to other Commonwealth Armies, a much prized course.

The system of recruitment is the best I have seen. It is the result of carefully thought out planning from the first day when it was decided to put the Indian Army on its new basis. At first, to obviate language, religious and feeding difficulties, each unit with sub-units of different class composition mixed up their sub-units. Then a system of zone recruiting was instituted. That is to say, recruits for a particular group of units were all found from a certain area of India. As the zone system progressed, a few units were earmarked for All-India recruitment till finally it became rather a disgrace to belong to a unit, still on the zone system. Now all units are based on the All-India system. Naturally in certain units certain classes predominate and in the beginning there was a certain amount of nepotism. Good officers and a system of promotion by merit alone soon put a stop to this.

While this system of general recruitment was evolving, the Armed Forces opened a large number of Boy's Schools all over India and on an All-India basis. These schools are not military schools in that they teach solely military subjects. Education is comprehensive and general. There is no compulsion to join the Armed Forces after graduating, though most of the boys do. Realising this, the Civil Authorities are now taking a great interest in these schools and paying towards their upkeep. The advantage of recruiting through such schools is immense. Recruits are educated and physically well built. As they have been caught young, they are broadminded with few prejudices. Their *esprit-de-corps* has to be seen to be believed.

In planning the recruitment of personnel, all the three Services planned and acted together. As a result the distribution of man-power is economically sound. There is no undercutting each other, quotas are filled on a percentage basis and each service offers equal opportunities.

The system of officers' recruitment is interesting. All applicants for a commission must go through the ranks, while the Field-Marshal's baton is definitely in every private's knapsack. Candidates accepted are put through a two-years course at the Military Academy where, after the first year, they specialise for a particular arm of the service. The nationalisation of the Army has produced a good effect on officer intake, as those who in the past fought shy of the "Imperialistic" outlook now do not have the same objection. Besides this, the All-India system has made the army known to far more of India.

Naturally the majority of the officers are Indian. It is interesting, however, to note that there are still a number of Britishers, together with a sprinkling of Commonwealth officers. The reason for this is twofold. When the new scheme was introduced, there were a large number of British Officers in the Indian Army, and many of these stayed on. Those who did not wish to do so

were given a gratuity, or else fitted into the British or other Commonwealth Armies. A scheme was also evolved by which an officer of the British or Commonwealth Armies could apply to be seconded to the Indian Army. This secondment, if approved, was, in the first instance, for five years, extendable by mutual agreement. Many officers have taken advantage of this. In addition to this, short term attachments from the Commonwealth Armies to the India Army and *vice versa* are very popular.

The Viceroy's Commissioned Officer, a rank in which you were interested, was done away with some time ago. Their original role was to provide the close contact between the British officer and the Indian soldier. With increased Indianisation this became superfluous, while with increased education in the country, the type that made the V.C.O. now makes the Indian officer to a certain extent. This change did not cause as much resentment as it was thought it might do, as the soldier realised that, if he was capable, he could make the officer grade a step beyond the V.C.O.

When this scheme was introduced naturally there were some difficulties. However, a careful preparation of the ground and a slow introduction overcame many of these. The greatest help was the fact that the Royal Indian Navy and the Royal Indian Air Force had worked this method since their inception. The Army saw its success and did not want to be left behind. The political leaders of the time were hostile at the start. They felt that with such a strong, united, non-communal force their power would wane. It did. However, other leaders arose who were co-operative and saw the educational value of such an army. One of the main arguments put forward against the scheme was that an army not composed of the so-called "martial classes" would have no fighting value. Events of the 1939-45 war, particularly among the officer cadre, disproved this. Strangely enough, some of the old type of British officer, who, I believe, used to be given an honorary rank of *Quoi Hai*, were much against the scheme. On the reorganisation, however, they were retired.

The breaking up of Regimental tradition was also used as an argument against its success. This did not turn out to be so, as the Regimental tradition, much shaken by the system of recruiting in the 1939-45 war, very rapidly developed into an All-Army tradition, which grows stronger every day. What really turned the scales was the Indian soldier himself. In the 1939-45 war he travelled extensively. In his job he met all sorts and types from India and abroad.

War made him shed many of his more irksome prejudices, in the first place through necessity, later through choice. He did not want to revert to them, and being backed by the Army, made the elders of his village come round to his way of thinking. The economic factor also helped as the army offered good pay, chance of promotion and attractive terms of service. These were not to be refused.

The Indian Army is at present a closely-knit, well-trained, national product, drawing on the best of the country's resources. As such it is a useful and formidable force.

I have the honour to be,
Sir,
Your most obedient servant,
XYZ., Col.

A "PERSONAL" POST-WAR PLAN

By "NIMIS"

"**T**HREE things shalt thou not see aboard a yacht for its comfort :—a cow, an umbrella and a Naval Officer." Where did this libel on the Senior Service originate? I have at different times held two theories; the first that it all started with one of our own earliest and not least distinguished yachtsmen—that Samuel Pepys was taken for a cruise by His Majesty in the "curious piece" *Mary* down to the buoy at the Nore, and that he had had a wordy passage on board with an irate Port Captain to whose accounts he had objected.

The other theory, which I prefer, makes the originator of the thing the skipper of Cleopatra's barge. You will remember Mark Antony came to Egypt as a N. O.; the allusion to the cow was the seafaring man's breezy but regrettably rude way of referring to his glamorous employer; while it is notorious that the vessel was very handsomely found in umbrellas, and what more likely than that trouble was experienced with one in the Khamseen wind?

To return to the point, I cannot say I have not had the thing impressed on me; the very subject was constantly harped upon by a transport captain of the last war, smarting perhaps from an over-zealous Mediterranean S. N. O. He combined his nautical functions with the responsibility of being my father, so his words carried the more weight with me; and it is presumably from him, too, that I derive a life-long hankering for the sea, which, however, first he and then India have all too cruelly suppressed; it will be all the stronger when our present troubles are over and soldiers are ten-a-penny again.

A desperate longing to go to sea was foiled by passing bad eyesight at Osborne age, and, later, by the aforesaid stern parent when I would have followed his footsteps into the Merchant Navy. Various weighty references to not sending dogs to sea were made on his infrequent stays at home, and diverted me from the sea as a profession to an odd mixed Army and R. A. F. career; as a preliminary to going finally to sea as an amateur it has been eminently satisfactory, and it has from time to time allowed me odd snatches of the sea, just enough to preserve balance and keep my goal before me.

But what was that opening quotation all about? You have probably guessed that I propose to set it at defiance, and in what respect? The first object named is unlikely to be my chosen companion, and the second would not wreck matters irreparably; but the naval officer evidently presents a clue; and so it is. Postwar plans are subtly entwined with Dolly, my wife, and Gordon, her brother, who is the N. O. in question, and the good ship "——". At present the latter is still unchristened; it may be her name will be arrived at before I have finished these ramblings.

And let me make it clear before leaving our old maxim, that I consider it quite unjustified, and undoubtedly one of those mistaken cases of reasoning from the particular to the general which so many proverbs are. Beyond a certain unholy delight in making passengers seasick, I have had no cause for anything but the most cordial agreement with all my naval shipmates in yachts; while the behaviour of a yacht is sufficiently different from that of a battlewagon to turn the tables in this respect occasionally, which is always a reason for quiet satisfaction.

The Plan, then, rests on the theme of our spending our declining years afloat, and I will ask you to be patient with me at the working of it out. In one respect, I would like the reader to realise that he is in a very privileged position, as he is hearing much of it before the other two most concerned; on the other hand, he is perhaps being unfairly treated, in that he may have started to read in the hope of having a cut and dried plan put before him for his own adoption, or for verbal destruction; whereas he is being asked to assist at its birth, and criticism will, I hope, lose the worst of its sting.

Now for a word about Dolly and Gordon. I hope I may be forgiven for bringing in their names in this manner; I have wearied so of yarns about "X———" and "Y———", and it has always seemed a senseless convention which has put me out of sympathy with the wretched people concerned. Will the reader therefore please know me as John, and Dolly and Gordon by their own names, which most admirably suit a couple of people I am remarkably fond of?

Dolly, I fear, is in a way the prospective victim of a conspiracy here; she has been imposed upon before in the matter of sailing, when she has endured anchoring in a swell in the lee of an oil refinery, four feet of headroom, impossible food cooked in quite unsuitable circumstances, and nights on the mud in a 5-tonner in the Solent. But we hope to offer her very much better things, and feel sure that an almost maternal solicitude for Gordon and me will persuade her even against her better judgement; Gordon, I feel, is very much of my own mind in the matter.

As to the shape the vessel is to take, a conflict naturally arises between the crew's desire for handiness and easy working, and the passengers' demands for house-room and comfort; this is in no way diminished by both parties being the same. But the answer comes ready to hand in the shape of a Thames Barge.

For the benefit of those who do not know her well, the barge sports a large sprit mainsail with a flying topmast and tops'le, and a mizen carried on the rudder head, making her as handy as a 14-foot dinghy in coming about; while, as she carries leeboards, her draught is only between four and five feet aft, her deepest part. And, of course, every foot off the draught opens up thousands of miles of possible cruising waters.

Before the war, the barge could be bought fit for sea (as a trading barge) in all respects, and thoroughly cleaned inside, for £350 or so; it is reasonable to assume that after the war there will still be barges available; very likely new ones are being built, only to be forced off the seas again by coasting steamers and to be available for sale. There are steel barges; here the cost is an incalculable factor, which might or might not be worth incurring, especially as wartime wooden construction would be doubtful; a pre-war wooden barge is probably what we shall look for.

As a trading vessel, the barge disdains an engine, but for our greater convenience it would be a most desirable addition, and we shall aim at 65—70 h. p. in either one or two Diesel or paraffin units. Deck additions that will be needed for the ageing crew will be a hydraulic windlass-cum-capstan and a winch, either specially geared or power-driven, for leeboards, halliards and other purposes.

Below, we intend to be extremely comfortable; and, as the craft will replace two houses and at least one yacht, there will be an adequate sum of money available for the purpose. It may not be realised what the size of the barge is; 16 feet beam, with 6½ feet headroom (except in the way of the mast)

for the whole of a 70—80 feet length. There is thus room for a living-room 16 feet by any reasonable length, separate dining room, galley, bedrooms and usual offices on the most ample scale; the question of crew space will hang on what is finally settled upon as the size of the crew, of which more later.

A most desirable feature of the plans (which are on paper, in a very fluid state) is a combined chartroom, lounge and main entrance, which will have a sliding roof, and be half sunk in the deck over the engine room; its floor will lift for work below.

A major cause of headaches in drawing the plans may here be mentioned. The barge is built on a keelson, which stretches the length of the ship, and is a beam 18" wide and a foot or so above the level of the floor. Where possible, this can be got over by dividing the space longitudinally, and building the bulkheads over it; but it remains a nasty obstacle in the main living room, which wants the whole of the beam. Some barge converters have cut down the keelson to floor level, but one would hate to weaken one's vessel in this manner. In the steel barge, it is, I believe, an insignificant member, resembling a railway line—probably it actually is in some cases.

As regards the plumbing and other amenities of life, the enormous space below gives room for really adequate water storage, with water heating arrangements coupled up to an Esse cooker or similar installation. There will be a connection for a shore pipe, when at headquarters or alongside a civilized quay; this will give full shore facilities so far as quantities used are concerned; a sump tank is allowed for all drainage, with a pump overside. At the moment there is some hesitation as to whether calor gas or anthracite is to be the cooking and heating medium; probably anthracite, for which coke can be substituted.

The electrical installation we propose to make of fairly good capacity, to deal with all services bar heating and cooking; and here there is a choice between a high voltage constant running A. C. supply, which would be extravagant, or a battery installation, of, say, 32 volts. Both have arguments for and against, which will have to be gone into. In either case, there will be a connection to shore mains for use when feasible.

Such being the vessel, I should like to outline what we propose to do with her.

In the first place, a preliminary stay in England is definitely on. Whether it will be our final home, or not, is another matter, which will be decided later, but for the first year or two of retirement the family H. Q. will be a fixed one, and a wharf used with permanent moorings, a road approach and suitable garage and storage space; also living room while conversion is in progress, and, perhaps, guest room. It will be in a reasonable spot for winter residence, but not too far from sea water; Wareham, Beccles and the Helford River, in Cornwall, are all in the running, while the River Thames is also a possibility; there is excellent accommodation within ten minutes of Piccadilly Circus if it is looked for, and of course many pleasant and suitable places higher up.

The programme for this period, then, would be a winter hibernation, with an occasional day's sail on the very pleasant days one so often hates to miss as a summer yachtsman, a three months' summer cruise, and small pottering trips for the remainder of the summer.

But it is certain that sooner or later the wanderlust will come over us, and that is the real point of the Barge (it is coming to be spelt with a capital B). These craft have safely crossed the Atlantic, and there is no reason why we should not see all the parts of the world we have always wanted to. A possible

sequence—no programme will in any circumstances be adhered to—after we have seen all our home cruising grounds, would be a Baltic summer, to get all our foreign-going arrangements well tested out; then the next spring down to the Mediterranean by the easiest of stages—a month in Breton ports, a stay at Vigo, another in Oporto, and so on. The Mediterranean might keep us a year or two; then, at the season of the year, off down the Red Sea in hops to Aden, a long passage across to Karachi, old haunts in India, Colombo, and then—our longest passage yet—to Fremantle. A very long stay in Australia, I think, mainly in Sydney, where a dozen anchorages call—Rose Bay, Rushcutters' Bay, Manly; and then—who shall say? I don't think we should face the Pacific without going deep into it, and probably across it in the course of a year or two. And then, if we went through Panama and across the Atlantic home, we should probably be of an age to call it a good lifetime, and settle in some quiet spot to round it off.

And now, are we justified in leaving England? Gordon, I think, is fully entitled to please himself: he was axed from the Navy in the middle of a very promising career, as a measure of economy, then recalled to a dugout position when apprehension took the place of economy as the ruling passion; he, I think, has every moral right to make his own choice. So far as Dolly and I are concerned, we shall have taken our allotted parts in the War, and it is reasonable to assume that the elderly and those becoming so will be of even less material value to the country than before; in new economic schemes they will be taking out rather than putting in. Besides, much of our joint income will be coming from India and Australia, so I think, if Britain balances the income we actually take out of the country against some other incoming Indian pension, no one will be the worse off. And, again, it is hard to believe that the great mass of work done voluntarily in the past by the elderly will not in the future be done at least equally efficiently for pay by the young.

We shall, then, leave England for our ten to fifteen years' trip (and, were we tempted on the way, for good) with quite an easy conscience. I should have mentioned before our lack of family ties; England loses a great deal of its attraction when they are gone. Excess of sunshine, again, is a state as much derided (by those who cannot get it) as an excess of money; but our view I think is that we don't get enough of it in England; and, when one can move one's home at will in search of more, why not?

There is certain to be a full and free discussion as to the Barge's name, and it may please the reader to think what he (and particularly she) would call her. I have always rather deprecated calling my vessel by a name even remotely having masculine associations, which rules out many possibilities. Surely, in the States, they sometimes find difficulties with such a remark as:—"The Ulysses S. Grant's a cute little craft, isn't she?" Then again, there are many ladies' names which I feel I am slightly snobbish in not caring for, but there is one—a former "Maggie" I owned slightly grated on my sensibilities, at which I hope nobody will be mortally offended.

One wants a name which will be reasonably short; painting letters on lifebuoys goes at so much a letter, or wastes twenty minutes a letter if you do it yourself. And, most important of all, one wants a name which will give no openings for mis-pronunciation by one's friends—and enemies—be they never so rough diamonds, or speakers of never so odd languages. Most flowers come under one or the other of these bans, and, personally, I am all for dipping into the "Nautical Almanac" and finding a friendly and female sounding star. *Vega* is my cockshy, a drawback being that it appears several times already in Lloyd's List.

A word now on the subject of finance. In my view the idea is on, with modifications, for anyone above the poverty line, with or without a family; but cruising far and wide wants a lot of thinking about unless the ship's income is fairly adequate. If you want to badly enough, you will go, and Weston Martyr's "Two Hundred Pound Millionaire" will be your exemplar; you will come to no great harm. The absence of an engine, and rather hard living conditions below, would make the scheme feasible; but to get comfort comparable with shore living I suggest a combined ship's income in four figures will certainly be needed. To my figuring, the number partaking seems to make little difference to expenses, and a partnership would probably work out so far as mere finance went; but one would have to know all one's partners "awfu' well." And, too, while it would probably be the very finest of real education for any offspring, it would not butter many academical parsnips.

Then, the question arises, as promised, of what, if any, paid help the *Vega*—let us assume the name sticks—will carry. Here I think the nature of the venture helps us enormously, in that there are so many in England of a like mind, but not able to run to it so far as worldly goods are concerned.

We don't want much in the way of brawn on deck, and we may flatter ourselves, but we do think we have the necessary brains in the after-guard to take us where we would go; but some profound and first-hand knowledge of the way of a barge would be well worth having, and we would certainly like a capable hand in the cook's and steward's department. With which in view, we think of an ex-barge skipper or mate and his wife. It seems like an ideal arrangement on both sides.

Amplifying slightly the remark above as to brawn not being really wanted, I would like the reader to realize that most barges spend their working life—under far worse conditions than ours, which goes out in yacht weather—manned by two men, or even a man and a boy; while we propose labour-saving with our hydraulic windlass and engine. And for a long passage there should never be any difficulty in finding an extra watchkeeper to come for his passage and keep.

One last point is, the need for barge experience on the part of the unpaid crew. Handling a barge looks, and is, as easy a job as most afloat, when you know how. But it is, like so many "easy" jobs, an acquired art, and, during the conversion stage, Gordon and I will probably both ship in trading barges for two or three months, preferably when there is a little weather about. The Portland Cement Co., run a very fine fleet up channel from Portland, and would probably be our aim; it should not be difficult to arrange in return for paying one's messing and keeping the ship's decanter awash.

Such, then, is one little postwar plan; and any criticism readers may feel inclined to add to Dolly's and Gordon's when they read my version of it all—any such criticism will be more than welcome. And so will the critics in person if they will seek out the *Vega* in 194..?

MASTERS OF DECEPTION

STUDENTS of German psychology well know how the Nazi leaders faithfully adhered to the Fuehrer's comment on page 252 of the German edition of *Mein Kampf* that "the broad masses of a nation fall victims more easily to a big lie than to a small one."

Below we recall some of the amazing—and sometimes amusing—statements of Germans in this war:

"We are proud to master the world as Germans. . . To-day Adolf Hitler is called upon to be the leader of the world unhampered by anyone. Adolf Hitler stands before the world as the greatest war lord in history."—*Dr. Frank, Governor of Poland*, 21-12-40.

NAVAL POWER.—"The day of Britain's might at sea is past. Aircraft and U-boat have turned surface fleets into obsolete playthings of the wealthy democracies. They are no longer a serious weapon in decisive warfare."—*Hitler Speaks*."

"It has become crystal-clear to the whole world that the armoured giants on which alone rest England's claims to dominate the seas have diminished in stature, and that the new forces of a new age actually possess the destructive weapons necessary to break England's supremacy at sea."—*"Deutsche Allgemeine Zeitung,"* 5-5-40.

"The modern aerial bomb with its absolutely devastating charge of high explosive has to all intents and purposes altered the value of modern big battleships."—*Radio Bremen*, 9-5-40.

"In an action between naval power and air it is air power which invariably gets the upper hand."—*German broadcast to England*, 30-5-41.

"The British Fleet cannot help Great Britain. Warships are absolutely helpless against attacking aircraft. Many English warships have fallen victims to the German dive-bombers, against which they have no defence."—*German home broadcast*, 30-6-40.

"The days are past when a war can be won by navies. The naval war has gone against England from the very beginning."—*German broadcast in English to North America*, 3-4-41.

"The blows dealt have again proved that in actual combat, the *Luftwaffe* is superior to British Naval Forces, and is thoroughly adequate to destroy English sea power."—*"Nachtausgabe,"* 23-5-41.

BLOCKADE.—"Germany is now mistress of the seas; her blockade has completely encircled Britain."—*Dr. Ley*, 26-8-40.

"The British Navy is not equal to the task of securing the communications of the British Isles."—*German home broadcast*, 3-12-41.

"The key to Britain's military position lies in the fact that the British Navy and the merchant fleet cannot even think any more of offensive enterprises, they can only consider defence. The Merchant Navy is inadequate to supply even the requirements of the war industry; for the transport of large troop contingents; in the establishment of a second front its numbers are altogether insufficient."—*Admiral Luetzow in German home broadcast*, 21-10-42.

"The entire Atlantic is a zone of death and the large shipping lines have been made desolate."—*Berliner Lokal-Anzeiger*, 5-11-42.

"The British Navy is simply impotent against the heroic German U-boats."—*German home broadcast*, 2-11-42.

"The day will come on which the lack of shipping in the enemy's camp will be so marked that they will no longer be free to execute their strategic decisions."—*German home broadcast*, 8-2-43.

"The effective striking power of the German submarine arm will increase as the weather improves. Britain's position is very largely determined by the battle of the seas. This is a struggle in which she must not hope for any relief."—*William Joyce*, 5-5-43.

"After destroying the regiments of the French armies we have overtaken the English Expeditionary Force. . . Leaving behind gigantic quantities of war materials and with units disbanded, this elite English Army, under the most dramatic circumstances, tried to save naked life. This attempt has, however, been frustrated by the incessant attacks of the German armed forces from land and air. What is left of the B. E. F. is doomed to complete annihilation."—" *Berliner Zeitung am Mittag*," 30-5-40.

INVASION OF BRITAIN.—"German battalions will soon appear on the banks of the Thames and four million insufficiently trained British soldiers will never succeed in offering any effective resistance."—*German broadcast to England*, 26-6-40.

"In six weeks the French colossus was overthrown; England, too, is part of this Europe. In the next six weeks the British will realise this, whether they like it or not."—" *Völkischer Beobachter*," 23-6-40.

"The final phase of the war will be so short that we would advise Churchill, Eden and their colleagues to book their passage to Canada at once."—*German broadcast to Flanders*, 10-7-40.

"England, the hour of judgement draws inexorably near. The Fuehrer will decide when the hour has struck."—*Goebbels*, 1-9-40.

"And if the people in England to-day are very curious and ask: 'Why doesn't he come?'—don't worry. He's coming."—*Hitler in Sportpalast*, 4-9-40.

"There remains no choice for the British Government but to evacuate London."—*German home broadcast*, 19-9-40.

BATTLE OF BRITAIN.—"Dover is already practically German territory."—*German broadcast to England*, 2-9-40.

"Germany has paralysed the R.A.F."—*German broadcast to France*, 2-9-40.

"There is no prospect of Britain finding an escape from her present situation of air inferiority, either in the coming months of 1940 or in the years of 1941 or 1942, or even later."—*Quade, broadcasting from Luxembourg in German*, 4-9-40.

"English planes of the third line are now being used. They are completely obsolete and show no fighting power at all."—*Zeesen to North and South America*, 16-9-40. (On the previous day the R. A. F. shot down 185 German planes for the loss of 26 British planes.)

BOMBING OF LONDON.—“If London or any other big English city attempts to defend itself its destruction will be the matter of a few hours or minutes, and it will be as thorough as the destruction of Warsaw or Rotterdam.”—*German broadcast to Brazil*, 8-7-40.

“Britain is condemned to death and German planes will ring her death knell. The ring is closing from which there is no escape.”—*Deutschlandsender in German*, 13-8-40.

“The heart of the British Empire has been left in smoking ruins.”—*German broadcast in German to U. S.*, 28-8-40.

“England lies on a salver, awaiting the German Air Force’s attack. She cannot escape. John Bull is sitting in a mousetrap. John Bull will be smoked out. Either he will surrender or England will be annihilated.”—*Dr. Ley in “Der Angriff”*, 3-9-40.

“England, the heart of the British Empire, has become the last remaining battlefield in Europe. It is a question of time—a few weeks, then this conflagration will have reached its natural end.”—*German broadcast to England*, 10-9-40.

NAZI PROSPECTS IN 1940.—“The war in the West is finished.”—*Hitler in proclamation to the German people*, 24-6-40.

“The war and the British Empire are lost.”—*German broadcast to England*, 13-9-40.

“The fate of the British Empire is no longer a question of years, but merely of days.”—*German home broadcast*, 8-9-40.

“The Axis has as good as pocketed the victory.”—*Goebbels in “Das Reich”*, 23-12-40.

“We are convinced that the war is already won.”—*General Brauchitsch to the German Army*, 24-12-40.

“The year 1941 will bring us the greatest victory of our Germany.”—*Hitler’s Order of the Day*, 31-12-40.

“With the 1st of January, the grand year of fate is beginning, during which Adolf Hitler will give to the European Continent prosperity and peace.”—*Dr. Frank’s New Year Message to all Germans*, 31-12-40.

“It is not too early to begin investigating some of the causes of Britain’s defeat, for that defeat is now inevitable and merely a question of time.”—*German broadcast to England*, 3-11-40.

BOMBING OF GERMANY.—“In any case I will see to it that they won’t be able to drop one bomb. Ridiculous propaganda pamphlets have been dropped by British planes, but Heaven help them should they exchange the propaganda for a bomb. Then our revenge will not hesitate for a moment and will act in the same way as our air force in Poland.”—*Goering at Goering Armament Works*, 9-9-39.

“No enemy, however strong, will be able to carry the war into Germany whether on the ground or in the air.”—*Frankfurter Zeitung*, 22-8-39.

“The R. A. F. is technically incapable of causing serious lasting damage.”—*Gen. Quade, in broadcast to Germany*, 6-12-40.

“And what will the R. A. F. do? It will make an attempt now and then to reach the German coast with bombs, but it will not fly in any great strength, because it has become convinced that it is no match for the German *Luftwaffe*. The German *Luftwaffe* is incomparably superior to the British.”—*Major Herman Kohl, in “Wir Fliegen gegen England.”*

"Germany has organised her air defence system very excellently. . . The system works so marvellously that it is impossible for the R. A. F. to drop bombs with any chance of success."—*German broadcast to England*, 30-4-40.

"We must regain superiority in the air and that is asking a great deal in view of the considerable size of the enemy potential. The German people must realise that the leadership is doing its utmost to obtain this goal as quickly as possible."—*A Mannheim paper*, 10-11-43.

VICTORY PROSPECTS.—"The fight will be renewed until what has been begun will be completed. The year 1942 will bring the decision."—*Hitler, in New Year Proclamation to the German people*, 1942.

"The new war can and will only have one end: a catastrophe for the British Empire."—*Hitler*, 26-4-42.

"Triumph after triumph will be added to the proud sequence of successes. Whether we are momentarily at rest or whether we gather for great offensives, the power and the will never forsakes us. That is why we hold the initiative—to-day, yesterday and tomorrow."—*Goebbels in Das Reich*, 26-6-42.

NO TWO-FRONT WAR.—"The Fuehrer's strategy has always successfully pursued so far the aim of waging the war on one front. Soon the two-front war will be nothing but a painful memory to Germany's enemies."—"*Voelkischer Beobachter*," 21-7-41.

ALLIED INVASION OF EUROPE.—"The second front must be assigned to the realm of fancy."—*Goebbels in "Das Reich"*, 26-6-42.

"If I had an adversary of significance, then I could approximately calculate where he would attack. But when one deals with military idiots, you can, of course, never know where they will attack. . . And this is the only disagreeable thing about it, that you can never know with these lunatics or confirmed drunkards what they will do next."—*Hitler*, 20-9-42.

"Wherever Churchill may choose his next spot, he may consider himself lucky if he succeeds in remaining ashore nine hours."—*Hitler*, 30-9-42.

"Every expert knows that the European continent is barred to any attempted invasion by the British."—*Goebbels*, 18-11-42.

"The protective wall along the Atlantic-coast of Europe is 200 kilometres longer than the Great Wall of China. The Atlantic Wall is the greatest fortification in the world, and will be able to withstand every attack."—*Transocean*, 4-4-43.

GOEBBELSIANA.—"The whole German nation thanks the Fuehrer for having brought us such times."—*Goebbels*, 4-9-40.

"It is indescribable luck for us Germans to be led by Adolf Hitler."—*Gauleiter Behle in German home broadcast*, 26-12-41.

"It is clear that Rommel is playing fast and loose with Montgomery."—*German broadcast to England*, 21-1-43.

"Germany is too well aware of the value of bombs to drop them uselessly on non-military objectives."—*German broadcast to Belgium*, 25-8-40.

"The German Government has never made miscalculations."—*Dr. Funk*, 1-9-40.

"Throughout this war we have been sticking to facts and we intend continuing to do so in the future. True, our news policy is sometimes a little taciturn, but it considers it dishonourable to claim or spread anything false."—*Goebbels*, 22-5-42.

JAPANESE MINES AND BOOBY TRAPS

BY CAPTAIN W. D. BRISTOW, R.E.

THOUGH I intended to write only about Japanese booby traps, I have increased the scope of this article to include Japanese mines, and it may be best to begin with a few words of explanation on the difference between these two types of explosive weapons.

Mines, both anti-tank and anti-personnel, are laid to assist in the defence of an area by closing likely lines of approach in such a way as to hold up and destroy an assaulting or patrolling enemy, or at least to give timely warning of his approach.

Booby traps, on the other hand, are carefully set in an area which it is not intended to defend, with the object of "jittering" an occupying enemy. If they succeed in killing a few people, so much the better, but the main object is to prey on his nerves and so lower his morale. Even the trained soldier has his human weaknesses—he will seek out such conveniences as an occupied town or village can offer, and will collect bits of enemy equipment as souvenirs. It is upon these weaknesses that the booby trap plays. Obviously, the less civilised the area of operations, the less is the scope for the use of booby traps, and that is probably the main reason why we have met so few true booby traps in the jungle.

In the British Army we have a large variety of mechanisms for setting off our own booby traps. The Jap engineer, on the other hand, right from his earliest training is taught to improvise from what he can scrounge in the field, which, of course, relieves both his Ordnance and his L. of C. of a big headache, but often presents him with some difficult problems. Up to the present we have found only one general-purpose equipment mechanism for booby traps and demolitions—and that is a simple pull igniter, consisting of a brass tube containing some "match composition" with a piece of string running through it, and an explosive cap.

On being pulled, the string ignites the match composition by friction, and this explodes the cap. The end of the tube is open for the insertion of the end of the fuse. This igniter is of much lower quality than most Jap equipment, and would almost certainly be rendered non-effective by even short exposure to damp, and that is possibly the reason why it has seldom been found in connection with booby traps or improvised mines.

Left to his own resources, the Jap has, as usual, risen to the occasion by producing some quite clever improvisations from his own, and from captured standard equipment. The backbone of his efforts has been the grenade, but before I write about some of the uses to which he has put them, we must consider the salient differences between his grenade and ours. Ours—the No. 36—is fired by the release of a spring-loaded lever, which in the safe position lies down the side of the body and is secured with a safety pin. On removal of the pin, the grenade immediately becomes alive, and requires careful handling.

The Jap grenade has its igniter projecting from one end, and is fitted with a safety fork. On removing this fork, the grenade is still comparatively safe to handle, as the igniter is not spring-loaded but requires a blow on its end to fire the cap. In normal use, this blow is given by the grenadier before

throwing the missile. Both grenades, of course, incorporate a fuse giving a few seconds' delay.

Of the booby traps we have encountered in Burma, many have been attached to items of a Jap's personal equipment or clothing. Not infrequently the No. 36 grenade has been used with its safety pin nearly out and joined by string or wire to some part of the piece of equipment or clothing. Any strain on the wire would pull the pin right out, and allow the striker to go down. In one case during the Manipur offensive in 1944, we found a pannier of medical equipment which the Jap left behind. At the bottom was a No. 36 grenade with the pin right out, and on top were tightly packed the normal contents of the basket, pressing down on the grenade and holding the lever in place—no wires, nothing suspicious about it at all, but just waiting for some inquisitive body to go souvenir hunting.

One exception to the above was of a quite different type. A dead Jap had had one of his arms lifted high off the ground, and kept in place until *rigor mortis* set in. A Jap grenade was then tied to the man's wrist, with the striker mechanism down, and so arranged that, when the *rigor* passed off, the arm would fall and the striker would be actuated when it hit the ground. It was rather a hit-and-miss business, because our troops might have been nowhere near when the explosion occurred, but it shows a great deal of cunning, and it is an interesting reflection that—even in this war—there can have been very few explosions caused by bodies long since dead!

For anti-personnel mines, the Jap has used devices similar to his booby traps. The British grenade with the pin nearly out, and fitted to a trip wire, has been much in evidence. A variation with the same grenade has been to slide it into an empty tin (such as a condensed milk tin), and then remove the safety pin altogether. The tin holds the lever in position, and all that is required is the usual trip wire tied to the grenade. Merely cutting the trip wire is insufficient to neutralise this device, as at a later date the tin may be kicked, and the grenade fall out.

The Jap has been equally cunning in his use of his own grenade as an anti-personnel mine. As an instance, one of his favourite tricks has been to cut a large-diameter bamboo, just above two consecutive nodes, forming a tube 12"—18" long, open at one end and closed at the other. A few inches short of the open end he drills two diametrically opposed holes, through which he slips a sliver of bamboo, tied to the usual trip wire. The bamboo is then fixed vertically, open-end up, and a grenade rested on the sliver of bamboo with its mechanism downward. On pulling the trip wire the sliver of bamboo comes away, allowing the grenade to fall to the bottom of the tube with sufficient force to detonate itself. The advantages in concealing this type of device in bamboo jungle are obvious.

For anti-tank purposes, the Jap has, until recently, relied upon his standard anti-tank mine. Although well-conceived and well-made, this mine is so small as to be relatively inefficient, and even the Jap himself appears to have lost faith in it. As a result, he now almost invariably uses two of them together, frequently boosting them with a bulk charge of picric acid. He has made great use of captured British anti-tank mines, and has most ingeniously got over the apparent difficulty of a shortage of fuses. His own fuse is similar to ours but smaller, so he stuffs the fuse pocket of our mine with plastic explosive and then gently inserts his own fuse in the correct position.

Another improvisation is the use of his own mortar bombs in an anti-personnel/anti-tank role, by burying them with just their noses above ground. As with his mine, he usually lays several together, and again boosts them with a bulk charge.

Most of the devices in use by the Jap suffer from one great disadvantage—they are not sufficiently powerful. Even a grenade is a poor anti-personnel device when it is remembered that it is going to be set off by a trip-wire, probably from some distance, and that before it actually explodes there is a delay of some seconds, during which a man can get out of lethal range. The Jap has now realised this and has recently introduced a remedy—the use of the aerial bomb. Various types of initiation are being used, including a specially improvised igniter which screws into the nose.

Suicide methods of initiation are worthy of comment. In a small hole in the ground squats a Jap, with a bomb, nose uppermost, between his knees. In his hand he holds a stone, and there he sits until a tank passes overhead. Then he bangs down the stone, and in theory Jap, tank, bomb and stone disintegrate in a cloud of dust. Fortunately, although he has found it a convenient way of committing *hara-kiri*, so far he has not succeeded in destroying any of our tanks by this device, and if he intends to employ it on a large scale, it will present a major reinforcement problem for him.

As a tailpiece, I should like to leave mines and booby traps to mention another use to which the Japs have put aerial bombs. During the recent fighting in North Burma the Jap decided to deny the use of a certain airfield by cratering it. They apparently had no bulk explosive, so they used bombs. These they buried nose uppermost along the runway, and over each they erected their "safety fuse" consisting of a wooden tripod with a number of bricks suspended from the apex by a rope. It merely remained for a Jap to climb each tripod with a box of matches, light the rope and then jump down and run for his life before it burnt through and let the bricks fall with sufficient force to detonate the bomb. It shows something of the knotted string genius of Heath Robinson.

AMATEUR POULTRY KEEPING IN THE ARMY

By "ENTHUSIAST."

FOOD is a very important factor in a British soldier's life in India, and experience has shown that nothing appeals to him so much as poultry reared under proper conditions. Fresh eggs, the chance of geese or turkey at Christmas, as well as tender fowls and an occasional duck all help to make a varied and attractive diet.

It is with the thought of helping those who have not yet undertaken this method of augmenting the official rations to do so that the following notes have been compiled. They describe the methods of poultry keeping by an Indian unit and by some individuals in a Plains station in the Punjab.

Initial costs spring to mind when contemplating such a step, so let me say at once that it need not be large. In one case I know a unit which began by expending less than Rs. 250, and after a very short time they were able to pay off their initial debit.

One of the first things to do is to construct the houses and runs. They can be made out of mud bricks and salvage—and here let me say that the Salvage people have always been most helpful. We made our bricks by troop labour during fatigue hours. They are made very easily, as most soldiers who have served in the Plains know.

Build your houses according to the number of birds you propose to keep. Avoid overcrowding, and make sure that your houses are kept scrupulously clean and well ventilated. Doors and windows can be made out of salvage wood and strips of metal, the latter being made like trellis-work. Perches must be round and tick-proof, and made so that metal cups are placed on the uprights and filled with used motor engine oil to prevent ticks from crawling up and getting on to the birds while they are roosting. Clean sand should be kept on the floor of the house, and the lower part of the walls kept whitewashed or well oiled.

Laying boxes should either be built in mud brick in the houses, or ordinary wooden laying boxes may be placed inside. Laying nests should be kept spotlessly clean, and soft litter or *bhoosa* placed inside. The boundary wall for the run should then be built, again with mud bricks, as wire netting is not only prohibitive in price but unobtainable in the market.

Walls of the run should be about 7 ft. high, and the whole of the run should then be covered over with camouflage netting (obtainable from salvage). The net should be fastened to the wall all round the run, and then propped up inside by old condemned bullies. This keeps out crows and hawks, both of them deadly enemies, as they carry disease to one's poultry yard as well as removing a young chicken or two. The run must be as large as possible, so that the birds can have ample room to wander about. A second house and run should then be prepared and kept in reserve as a change-over after four or five months.

Having got the house, laying boxes and run ready, the next thing is to purchase the stock. There are two ways of doing this—either by purchasing full-grown birds, or by buying eggs and broody hens and hatching out the chickens under local arrangements. The first method gives a quicker return for your money, and in the case of country birds it is more sensible. The second

method is a slow business but more interesting, and in the case of English birds it is the cheapest way of providing stock if time is available. If full-grown birds are purchased they must be isolated for ten days, for diseases among country birds coming from local farms are very prevalent. One of our units lost from disease the whole of its newly-purchased stock of about 50 birds in between four and five days.

A liberal supply of fresh water is essential. A little salt and "pinkie" or sulphur should be put into the drinking water, and the receptacles kept thoroughly clean. In the hot weather fowls often stand in water to cool their legs.

Feeding is carried out three times a day. Wheat is the best all-round grain, but during wartime it is far too expensive. Atta, which can be purchased very cheaply from Supplies if it has been condemned for human consumption, is an excellent food, and when mixed with bran makes a very good wet mash. Crushed maize and grain are also good. Scraps from the house are always enjoyed by the birds. In the case of chickens, only water and sand should be given for the first 36—48 hours, after which chopped egg and breadcrumbs should be given every two hours for the next five days. Bread and milk also helps quick growth. Hatching, by the way, takes 21 days.

A good supply of green food is essential. It should be tied up above the ground, so that birds have to jump to reach it—and it gives them useful exercise too. Another important item in their diet is grit.

So much for fowls. Next to them the most lucrative form of poultry keeping is undoubtedly ducks. In the area in which I serve the Production Branch have been most helpful, and through them we have been able to purchase some good Kashmir birds. They are larger ducks than are obtainable on the Plains, are good layers and produce a very good sized egg. Preliminary arrangements for preparing for the arrival of the stock are much the same as for fowls, except that they must have a duck pond sufficiently large for them to swim in. This, however, presents no great difficulty in a place where space abounds and canal water is available.

One drake to six ducks is a very fair proportion. The duck usually lays at night so it should not be let out too early in the morning, for otherwise she may lay the egg in the pond (which isn't quite fair!) or anywhere on the ground where it suits her convenience. The duck is not normally a good sitter, and seldom appears to go broody. My experience so far is that all hatchings have been done by hens who suffer a rude shock and considerable dismay when the birds hatch out!

A duck's egg takes 28 days to hatch out. It must be sprinkled with water once a day during the whole 28 days to help to keep the shell moist. If this is not done, very great difficulty is experienced during the time the young bird is coming out of the shell; they often fail to break through and die from suffocation.

Ducks are exceedingly good scavengers, and should be let out as much as possible to forage in ditches, canal channels and other moist places. A wet mash of atta and bran in equal quantities should be given twice a day. As a rule ducks are good layers, and lay on and off throughout the year.

The keeping of geese is also a most interesting hobby. They are easy to keep, provided, like ducks, that they can get water and have plenty of room to move about. They mix with ducks, and I keep and feed them all together,

as they all live on the same food. They are excellent grazers, and need a great deal of grass or other green food.

The goose, although laying few eggs, and then only during one period of the year, is a very good sitter, and in my experience 100 per cent. success is often achieved. The period of incubation is 30 days. Goose eggs, like duck eggs, require damping once a day, even though the goose goes into water and comes back with wet feathers on to her nest.

Father gander is a very faithful husband, and when once the hen bird goes to sit, he never leaves her, standing guard over her day and night. When the goslings arrive, they remain as a family and keep with the father and mother indefinitely. Geese are wonderful chowkidars, and call at the slightest noise or sign of strangers. They are inclined to be ferocious, and often attack those with whom they are not familiar.

Turkeys, on the other hand, are delicate birds, and difficult to rear. Mortality is often very high, and from a commercial point of view it is perhaps wiser for units not to include them in their poultry yard. I keep a number of white turkeys, and so far have been fortunate. From one pair of birds we got 16 birds out of 18 eggs, and they are all doing well.

Turkeys are ornamental and very friendly; the parent birds always follow me round the garden, and the youngsters are beginning to do the same. Incidentally, if one is prepared to take the risk and is successful, turkeys realise high prices these days at Christmas time.

For those who have the time and facilities, the use of an incubator is well worth considering. In this matter, too, the Production Branch has again been most helpful; they put up a 50—egg incubator for me which had been made locally at a very reasonable price. A unit here recently purchased one of these incubators and got very good results, and it is hoped next year to have it working regularly during the whole of the winter. These incubators do, however, require very careful watching and constant supervision.

In the short space at my disposal I cannot deal adequately with diseases and remedies. Suffice it to say that prevention is better than cure.

One final note. Strict and constant supervision is essential in poultry keeping. It needs an officer's keen eye. Birds can often be off colour, and not be noticed by the individual in charge, but by spotting a sick bird in the early stages it can be isolated and an epidemic avoided, for epidemics spread like a plague through the entire stock. Or, again, by giving a small dose of medicine at the right time you may save losing a bird, for it may get back to normal very quickly, whereas had it been left for 24 hours it may not have survived.

Poultry keeping demands enthusiasm, and if the poultry keeper himself is enthusiastic, his helpers will be also. It is a big subject, and I have only been able to touch the fringe of it, but the fact remains that it is very easy for units to have their own poultry show running. From every point of view they will find it pays handsomely.

Getting "poultry-minded" spreads throughout a station. Such remarks as "I got 9 chicks this morning from 10 eggs" and "You should see the eggs I had from my fowls yesterday" reflect the keenness of our poultry keepers. Even my Chief Clerk (a Conductor of many years' service) greeted me this morning with the remark: "Good morning, Sir; I had 14 chickens out this morning!"

At the same time, our Padre (himself now a keen poultry keeper) was liable to be misunderstood the other day when he said to a friend that "the Colonel (meaning the writer of this article) is making everyone in the Station fowl-minded"!

THE FRONTIER MYTH

BY MAJOR W. F. G. SPAIGHT

THE British are a tenacious and conservative race who do not like change, and their loyal regard for catch phrases, even after the phrases have outlived their original meaning, is one of their characteristics. It is still believed by many, whose numbers are not confined to civilians, that the North West Frontier of India is the "best training ground for war in the world," and that the trans-border Pathan is the "Best umpire in the world," even though the coiners of these phrases are as out of date as the conditions that evoked them.

Forty or fifty years ago the Frontier was, no doubt, an excellent training ground. In those days Frontier warfare had not hardened into a set drill, and there was scope for initiative and boldness. Political control was less complete, and armed "Friendly's" did not wander at will round operating troops. In the Tirah expedition of 1897 the troops acted offensively both by day and night against any armed Pathan who approached. Since then the opening up of the frontier, the increase in political control, and the great increase in the numbers of firearms in circulation among the tribes have altered conditions.

Modern conditions have made the role of frontier troops that of armed police, and a Policeman's lot is not always a happy one. The order is that no offensive action can be taken except in retaliation after hostile action. The emphasis is on the security of arms and ammunition, owing to the fact that the Pathans' main source of supply is by loot. The insistence on the necessity to collect the bodies of all casualties has bred a tradition to avoid casualties at all costs. These collectively breed a complete lack of aggressive spirit—if not actual timidity—in frontier troops that is certainly not good training for war.

The following points apply in particular to Waziristan during wartime, but not to actual punitive columns.

Operations of War.—If the various operations of war are considered it becomes clear that frontier procedure is not a good prelude to modern war. The guarding of the inevitable mule train, both on the move and at the halt, breeds caution. In this connection it should be noted that while some mechanization has crept into frontier camps, complete motorisation of all transport and supporting arms would mean complete confinement to roads.

The *Advance Guard* makes no advance without security. Every feature from which the train can be sniped is captured and held until the column has passed. This is essential as nobody has yet taught a mule to lie down and take cover. Train mules are led in strings of three and offer a large, vulnerable target. This makes the advance a slow and unimaginative business. Any armoured vehicles present are tied down to the speed of advance of the force, and are merely used as mobile pillboxes to support the advance of the forward troops or pickets. There is no scope for bold or original action by any of the arms concerned.

The *Attack* in frontier warfare is almost non-existent. The tribesman will not wait for anything like a prepared attack to be put in. The exceptions to this rule are few and none are recent. The attacks on the Dargai heights in 1897 and on the Ahnai Tangai in 1920 are the best known examples. The only attacks normally put in on the frontier are immediate section or platoon counter-attacks against an ambush or follow-up on an isolated hill picket.

Defence on the frontier is planned to prevent rifle thieves creeping into our positions and to provide cover against long-range rifle fire. Thus positions are extremely concentrated and are unsuitable for war. There has been no serious Pathan attack upon a perimeter camp since Wana in 1894, and so positions, obstacles and defensive fire as used in war are neither required nor practised.

Rear Guard.—On the frontier it is a tradition that all withdrawals must be carried out at the greatest possible speed. It is essential to reach the camp site with sufficient hours of daylight in hand to build the rifle thief-proof camp, pickets and perimeter. There is no dogged holding on to positions; all ranks are looking over their shoulders all the time. All are on their toes for the signal to retire and then they just "run like hell."

Patrolling is a most important feature of war. The distant reconnaissance patrol and the fighting patrol are two of the most essential tasks the Infantry are called upon to do. On the frontier the need to preserve arms and the fear of casualties rule out all distant patrolling. The danger that a reverse to a small detachment might raise the local tribes, who will hear exaggerated rumours of the loot obtained, normally causes strict "bounds" to be laid down for small parties. The number of armed Khassadars and friendly Pathans who inhabit the vicinity of all camps also rules out fighting patrols. Short range night patrols and small ambushes on routes leading to sniping sites near camp are practised, but the need to prevent affrays between troops and armed friendly Pathans causes so many restrictions that the patrol leader has small scope for anything except the rigid obedience of orders.

Night Work.—In a country where the enemy and the friendly wear the same clothes and both are armed, the danger of unfortunate incidents is such that it becomes necessary to curtail the movement of troops for training purposes. For night parades it is normal to forbid troops to approach within several hundred yards of any house, village or khassadar picket. Frequently troops are ordered to take a Pushtu-speaking guide whose duty is to challenge any individual met. The result is that night work on the frontier is of less value in training for war than night parades in Indian plains stations.

Physical Fitness.—Conditions on the frontier are such that long route marches or long range work of any sort cannot be practised. The fear of incidents that might cause a flare up, cause orders that prevent all but large parties—normally a battalion with artillery support—moving outside the ring of the camp pickets. All men must be inside the perimeter camp by dusk. On the occasional practice column some Infantrymen have to climb to high pickets and retire at speed.

In certain parts of the frontier, such as the Razmak road, troops go out and open the road on the average twice a week, but the numbers of troops available for this duty and the few energetic tasks that have to be done are such that this work is not sufficient to keep men fit. A large percentage of the frontier garrisons are tied up in static roles such as camp pickets, perimeter posts and reserves. The average sepoy does not have enough hard work to keep him in hard condition.

The climate of Razmak, Wana, Gardai and possibly, Damdil is better than the plains, but restrictions on movement are such it is doubtful if the frontier troop is as fit as the troop in a plains station. This is particularly the case in regard to ancillary troops. Troops in training formations in India are certainly far tougher than troops stationed on the frontier.

Alertness.—In recruit training it is impressed upon the individual that when he goes to war he must be alert; for it will be a case of "kill or be killed." Thus when a man goes from a peace station into a war area he is mentally alert. A man proceeding to the frontier, for the first time, is told a similar story. He, too, is all keyed up and on the alert. On arrival he finds that his reports of tribal movement near his post or picket are either treated with scorn or neglected. He is forbidden to shoot, or be rude to, tribesmen who do not actually shoot at him or attack him with a knife.

Thus, while he knows he is in hostile country, he is forbidden to go out looking for trouble. Under no circumstances can he initiate an offensive action; he can merely resort to the age-old right of the citizen of self-defence. If a soldier spends any appreciable time on the frontier these conditions cause him to become slack. The occasional incident may renew his keenness, but months of inaction sitting on the defensive can have but one result. The frontier soldier is not alert.

Use of Weapons.—On the frontier troops are liable to be shot at—in a vicious way. This is of very real value indeed. Though enemy bullets are scarce, those that come are worth all the rest of frontier training for war. All troops also have a chance of using their weapons against a live enemy—in more exciting conditions than can be obtained on a field firing range. The value of this is, however, lessened by the fact that our troops can only fire in retaliation, and that it is unusual for the Pathan to open fire except in close ambushes on distant picket garrisons or in long-range sniping fire. In either case the Pathan has prepared his position and this normally provides cover from view and fire in the direction of our main force.

Thus our arms are used at an unseen enemy, normally at long range. In the close-ambush, fire cannot be opened because our troops and the enemy are intermingled; this is because the enemy's object is to loot arms and ammunition, until the enemy retires, generally to dead ground. In long-range sniping our fire can only be directed against a particular hill or hillside from which fire is coming. It is unusual for our troops to be able to discern either strike or effect of their fire. This leads to browning an area of hillside.

Political Control.—In all types of warfare—except perhaps in totalitarian states—there is political control of the war objects of the military. On the frontier, however, political control is more embracing and effectively prevents military initiative in any form. In the event of serious military operations the political become advisers rather than controllers. While this is designed to keep the frontier quiet—and normally achieves its object—it is not helpful in training military leaders in warlike conditions.

Conclusion.—The frontier is not a good training ground for modern war. Troops and officers steeped in frontier training are liable to be excessively cautious, timid in patrolling, ignorant of modern tactics, unfit physically and horrified of high casualties. Before frontier-trained troops go to war they need special training to make them more offensively minded, with particular attention to patrolling and night work.

SISTERS IN NEED

BY ENID SCOTT.

"My object in going to villages and seeing women personally, is to establish direct contact with them—to give them courage and confidence and to settle their grievances as quickly as possible."—From the Report of an Indian W. V. S. (I) Member of the Fauji Sevadarni Scheme.

WHEN Japan is beaten men of India's superb fighting forces will return to their families. They will return full of just swagger and *panache*, having played the part of hero in the war theatres of the world, or they will return maimed in body or in mind after long years at the hands of a bestial enemy. In any case, they will need homes fit for heroes to live in. They will not find them everywhere, because the standard of the home is the standard of the women living there; and the Indian soldier's woman does not yet know how to make a home fit for her soldier man's return.

During the past hundred years, the Indian Army has brought ever rising standards to the men serving the King-Emperor, but this well-being and enlightenment has not reached their wide-flung village homes, because the women have not been included in the welfare measures extended to their men. Such pre-war efforts as were made on behalf of Families quartered in regimental lines were limited by meagre funds, by lack of co-operation from civil and military Hospitals, and by the reluctance of many British officers' wives. Success was always due to the vision and leadership of the senior British lady concerned. Where there was such leadership, success was more than hundredfold, triumphant witness to the mighty achievement awaiting a nation-wide effort in this cause.

Such welfare work has continued in varying degrees to provide for both physical and cultural needs of Forces' Families quartered in regimental lines, but it remains intensely individualistic according to the regiment concerned. There is one flat curriculum, no dead level of administration. In some units the accent is on bodily welfare, in others a women's institute stresses handicraft or the elements of literacy. In most of these organisations there is a shortage of British and Indian officers' wives willing to give service in the cause.

In few centres is sufficient use made of the opportunity to prepare this constant turnover of women quartered in unit lines, for the problems awaiting them, when they, in due course, become war separated wives. This should be by means of simple talks on the war as it affects the Families; the principles of self-help, together with an elementary explanation of the civil and military administration existing for relief. Such instruction would necessitate augmented service, and as things are now could only be given by local voluntary ladies qualified and willing to do so. Their reward would be the formation of a cadre of well-informed confidence, percolating amid the welter of fear and ignorance in scattered villages whence soldier men go forth to fight the war.

It has not been easy for war separated families throughout the long years of this world war. Bad enough at first, when the men went off to Eritrea and the Middle East; infinitely worse in the black days of Singapore and after—days when fear and rumour stalked the villages; and those sinister terms

"missing" and "prisoner of war" took on a menace and horror such as the world had never known before.

The public did not worry much about those Families, hidden away in remote rural areas. We were all too busy with our own war problems to think much about those women, too ignorant to read or write, or even understand letters or news, or any official instructions to help them in their need. Men of the Indian Forces are not bound to make family allotments, albeit encouraged so to do. Many prefer to make it to a male relative rather than to a wife, leaving her welfare to this man's goodwill. Thereby can come much abuse and insecurity. All too often, such women become the victims of unscrupulous men who misappropriate their money and their land. Some of them have become ever more and more helpless in the stranglehold of litigation and dispute.

As the war dragged on, the position of some women became ever more invidious. In a country where women are scarce, things may not be easy for a young and comely wife, whose husband has been swallowed up by years of war. At times, lust has reared its ugly head, together with assault and bigamy. Indian weddings are not registered. Sometimes these women have been unable to prove their married state. The writer has watched the investigation of the case of a girl whose husband came on leave from overseas only to strip her of every scrap of property or other evidence that could prove her to be his legal wife. Her dumb pitiful ignorance was such that she knew neither his unit nor his whereabouts—nothing but his bare name. She had a bedridden mother and was destitute.

In a number of cases the family breadwinner has become disabled or died during the long years that now lie between. Where this has happened, distress is urgent and real. Among city families, unjust extortions by evil landlords have become prevalent. Not much may be done to bring comfort to the pretty girl with tear-filled eyes who could not understand why her husband, missing since Singapore, had not been given home leave by the Japanese. She had not been long enough wedded for her to bear her man his first-born child. There are many unjustifiable (though understandable) requests for husbands or sons to be sent on leave but they pale before the just claims of grim distress.

The Soldiers', Sailors' and Airmen's Boards have done their willing best to cope with all this grievous woe. The Civil Liaison Organisation has greatly alleviated poverty and dire need. W. V. S. (I) have contributed service in the cause, but there has been a great gulf fixed between well intentioned, masculine administration and illiterate, feminine distress. British male official ignorance has confronted Mother India's immemorial custom, caste and reticence.

The war dragged on; and from this impasse the Army at length evolved a scheme most typically British in its makeshift inadequacy, combined with vision and efficiency. They called it the *Fauji Sevadarni* Scheme, which is clumsy and has not made things any easier. ("What is a *Fauji Sevadarni*, anyway?" queried the very senior Welfare Directorate officer, less than a year ago).

A *Fauji Sevadarni* is a voluntary woman welfare worker who undertakes to contact the Forces' families in her neighbourhood to discover and report distress. She is expected to take the sick to hospital and tend them if necessary; to help with correspondence to settle disputes, promote recruitment and bring deserters to justice. She works under a Head *Sevadarni* at *tehsil* level, who is directed by the District Inspectress *Sevadarni*, who is responsible to the District S. S. A. B., to whom she must report cases for action and redress.

The Scheme is an adjunct of the Civil Liaison Organisation. For their arduous and complex services, involving knowledge of human nature, courage and tact, the *Fauji Sevadarnis* are paid "out of pocket" expenses, ranging in scale from Rs. 5-10 to Rs. 200 p.m. The payments are inadequate for service rendered and travelling expense involved. Efforts are made to provide motor conveyance, but it is not possible to do more than touch the fringe of the necessity. Tongas and feet are substitutes.

The Scheme's strength is in its weakness, its weakness is in its strength :—

Lack of funds means lack of high grade personnel ; but voluntary service is ever service of heart and will.

Poor pay equals poor social status ; but no position means no "face", to lose or gain.

Inadequate transport presents great obstacles ; it deters all but the tough and spirited from venturing in this task.

Humble illiteracy means ignorance ; but provides common background between those serving and those served.

Male prejudice is offset by bonds of suffering and sex.

Success or failure of the Scheme depends much upon the District Inspector *Sevadarni*, who *must* be a woman of educated discernment, sufficient to discriminate between the manifold problems brought by her humbler colleagues, and to press upon the S. A. A. B. those in most urgent need. Standards of *Sevadarnis* vary everywhere. In some areas all are literate, in others, many can neither read nor write at all.

It is the opinion of many Civil Liaison Officers that illiterate *Sevadarnis* are useless in this cause. Such is not the opinion of the writer, after seeing them at work. The Indian village woman has a fund of common sense, despite history's long attempts to stifle and to stultify. The humblest *Sevadarni* wears purpose in her face ; and can display an astonishing degree of ability to sift out "nonsenses" and "bunkery" among all the piteous calls for aid. For City work, literacy together with some degree of sophistication are essential qualifications ; but it is even more necessary that the village *Sevadarni* should understand her background and be at grips with the problems involved.

Many of them hold magnificent family war records, and have given their men in this and earlier wars. The fact that such come forward to serve under the conditions involved, gives proof of Quality. There is that in the faces of some of them that is worth more than literacy. Much valuable preparation and instruction can be and is being achieved by means of periodic conferences, organised by far-seeing Civil Liaison officers and by a few magnificent pioneer British ladies working in this cause. Such gatherings achieve more than a rudimentary knowledge of war aims, welfare administration, homecraft and hygiene, or postal regulations. The women who attend learn also something of the Body Corporate—its spirit and ideals.

What is needed is the best everywhere ; but the best won't be forthcoming in any quantity, until Authority is prepared to pay for it. Meanwhile, underpaid and illiterate *Sevadarnis* are better than no *Sevadarnis* at all. That this makeshift and threadbare Scheme has justified itself is proved by its high popularity with the Families ; by the conquest of local male prejudice ; by the demand of Civil Liaison officers for its extension by means of better pay ; and by Authority's astonished admission of the good behaviour of its own starving, Cinderella child,

Unfortunately, local prejudice is not yet overcome in the predominantly Muslim northern areas, which have poured forth their manpower in this and earlier wars; and where the need of the Families is commensurate with the service of their menfolk in the Allied cause. It is hoped that Muslim good sense and high ideals will soon defeat old-fashioned prejudice. Maybe the astonishing tales of a recent Punjab *Fauji Sevadarni* Conference have by now reached the conservative corners of the North. This most felicitous gathering of three hundred *Sevadarnis* of all castes and creeds was held in a British Civil Liaison Officer's own garden, where the hostess was his wife. Amongst many delightful happenings, was a local regiment's "At Home" to all the *Sevadarni* delegates. Upon this auspicious occasion the lady guests were given the opportunity to see how men of the Indian Forces live when on military service away from their own homes. In this connection also, it is encouraging to note that a Punjabi Begum, member of a most distinguished northern Muslim family, now holds commissioned rank in the W. A. C. (I). And at a recent *Fauji Sevadarni* meeting, the writer met a young *Purda-nashin* Muslim girl who requested an educational grant, to enable her to train as a professional nurse. She was one of a family of five, all dependent on a brother serving at the Front.

Lacking adequate funds, much may yet be done to further the success of the *Fauji Sevadarni* Scheme everywhere, by the wider appointment of qualified Indian and British ladies to District S. S. A. Bs. In many parts of India, W. V. S. (I) members are undertaking such responsibilities with encouraging results. More are needed to give guidance and advice to *Fauji Sevadarnis*; and also by means of their sophistication and prestige to promote the welfare of the humble Forces' Families in the Districts where they live. Ladies undertaking such responsibilities should understand something of the problems under review, together with the civil and military organisations existing for relief. For this they should consult the G. H. Q. Handbook entitled "Family Welfare I. T.". English women need a serviceable knowledge of Urdu, but local vernacular is unnecessary, as they will not work singlehanded and *Fauji Sevadarni* personnel is for direct contact with the Families.

Generally speaking, it is neither possible nor desirable for W. V. S. (I) members to become active *Sevadarnis* in rural areas. Such women must be sturdy workers fully conversant with local conditions and needs. W. V. S. (I) may achieve greater service at more indirect approach. But this statement is strictly qualified because, far-flung across the face of India, British and Indian members of W. V. S. (I) are giving magnificent working service in this Scheme. No praise is high enough for the qualities of heart and mind and leadership inspiring them in this cause—a cause where the going is tough, the problems complex and raw.

There need be no discouragement for less specially qualified women to render service on behalf of Forces Families. There is wide scope for British and Indian ladies willing to attend organisations and gatherings. They will, by their sympathetic presence, encourage workers in this cause. It is insufficiently realised how greatly the presence of some gracious member of W. V. S. (I) can enhance both rural and urban gatherings convened for the welfare of Service Families. W. V. S. (I), of which Her Excellency The Viscountess Wavell is President, holds high pride of place in ranks of social service. It should use its distinction and prestige to bring a glimpse of glamour and of charm to drab lives that are in need of all the gracious gifts of womanhood.

India has awakened slowly to her long-neglected women's needs. Voluntary service is ever the pioneer service where need is greatest, and this

is true of welfare for the uneducated women of India, including the Forces' Families. Apart from those directly concerned, the general public has had but little knowledge of the low-grade conditions prevalent in homes of men of the Armed Forces to whom it has looked for protection in time of war. The apathy of both Indian and British women towards their sisters' dire distress has been partly responsible. Now the war is bringing realisation to all; and with it a greater sense of responsibility to educated women of whatever race. The old excuse of the non-existence of suitable women in this cause no longer holds good to-day. Given the leadership and given a *living wage*, the women can be found. The Women's War Services give proof of the ability of Indian women to earn their worth in service of their sisterhood.

With the development of technical Armed Services, more and more Forces' Families are to be found in urban areas, presenting a new aspect of a problem hitherto confined to village life. Certain Provinces are tackling these matters on a broad scale, by means of local funds. Their schemes are individualistic, but in each one of them there is the need for qualified Indian and British Women to advise and instruct less sophisticated personnel. Where the authorities are prepared to pay for such service, it is forthcoming; but it is more and more evident that in these inflated and uncertain times, voluntary service can no longer be more than a pioneer service blazing the trail for nation-wide government services that must come on behalf of all backward Indian womanhood. Such services inevitably must come, because—inevitably—the women will have them so; and will be beyond the scope of voluntary or "out-of-pocket" allowance scale.

Full government services must include welfare of body and of mind for every woman and child everywhere. Our immediate concern is the welfare of Indian Forces' Families, who are but a fraction of the backward whole. Discussion of the scope of such services is beyond the scope of an article dealing only with matters known and seen. Whatever form these services may take, this must be *by women for women*, voicing their own need. Medical services must infiltrate to remotest areas. Domestic education must be compulsory for a minority sex whose primary concern will always be the family and home.

For Forces' Families, whether in peace or whether in war, there must be an end to so much preventable drabbery and woe. They must be taught the self-help that can prevent exploitation and haplessness. They must learn, as their men have learned, that life despite its hardships, can and should be "fun". The Indian serviceman has played the hero everywhere; not only on the world's most awesome battlefields, but in the world's colourful capitals also. Give his girl the chance to play the heroine. Give her but the chance and she can beat him at his game. She is by nature gay, forlorn, drab and weebegone only by long centuries of burden and neglect. Give her the chance to prove her glamour and her worth.

If this be not done, then there will still lack homes fit for heroes to dwell therein; brides fit for heroes to mate withal; and babies meet for heroes' sons. And all the glory, all the sacrifice, will be so much flood water lost upon the ebbing of the tide of war—lost to India and her children for another age.

PERMANENT PEACE—THROUGH THE CHILDREN

BY BERNARD TUCKER.

AMIDST the welter of words about post-war reconstruction, I am distressed to see that so little weight is given to the question of the education of our enemies' children.

This is a vital, urgent matter and there is a terrible danger of its being relegated during the peace planning, into a low priority, and eventually being dealt with in a half-hearted and tepid fashion. You may be sure that this will be just what our enemies want, and will aim to secure.

The body which controls the way and tenor of thought of the growing child is going to control the morals and way of thinking of the nation twenty years hence, and nobody realises this better than the German—it was all part and parcel of their ruthless creed, this systematic conversion of their growing youth into pestilential and arrogant little Nazi thugs.

The United Nations must insist upon complete control over the education of German and Japanese youth for a period of twenty-five years at least. By that time the children's character will have been formed beyond the possibility of any swingback to gangsterism.

Now, in our fight for peace, this question has to be brought to the forefront, the line of policy irrevocably decided and the policy itself implemented with rigour. Defeated in physical fighting, our enemies are going to resist, with every weapon left in their armouries, our claim to this right of educating their children. They will find a good number of soft-hearted supporters, too, amongst those people who cannot fully appreciate the bully's braggadocio in Victory, his cunning after defeat. By guiding the child's thoughts into right channels, we can ensure permanent peace for our children and our children's children.

Our enemies, by skilful transmission to their offspring of their sense of grievance, their tainted Paganism, can ensure a greater World cataclysm than the present one within fifty years. Let us clamp down with a ruthlessness equal to that of our enemies, on all attempts on their part to play on our feelings, to wheedle any concessions out of us on this point. Here are a few of the difficulties which may with reason be envisaged, in the application of this policy. Since, in my opinion, the Germans present rather a different problem to the Japanese, I will deal with each separately.

First, with regard to the Germans; we must accept the separation of the children from the parents at the age, say, of five years. Inhuman? Callous? Contrary to all Christian tenets? My answer is "Yes, and so is War."

The physical brutality of War may have come to an end, but we are fighting on, with unabated fury and enthusiasm, for the reclamation of souls. We must, to use the hackneyed *cliche*, "Win the Peace" at all costs. By so doing we are going to save the lives of millions yet unborn. Surely this is little enough punishment for a nation that has, like Germany, involved the whole world in the miseries of War?

This separation must be accepted; there is no way otherwise to prevent the German parents, nursing their usual grievances, from infecting the children with the Teutonic madness. Let the aggrieved German adult continue in his

state of passionate resentment against a world hostile to his ideas of personal aggrandisement, but take the growing mind out of this influence.

At the age of eighteen or so, after some years of careful schooling outside Germany, under the care of foreign tutors—Russian, French, American, English—there should be no lack of public-spirited people willing to assist in this great work—they return to their native land, old enough to resist any insidious attempts at perversion by their parents, and with a broadened, cosmopolitan, and international outlook, good and useful citizens of this brave new world that is to come.

History taught to these youngsters must be of an entirely unbiased type—no racial controversies—no patriotic distortion of facts. Above all, it should include propaganda intended to show and extol the futility of war as a means of settling disputes. These History Books, which by rights could only be written to perfection by the inhabitant of another planet, must be drawn up by an international committee, representing every nation.

As regards religious teaching, rudiments of every creed could be explained to the growing child, and on the reaching of a suitable age, the child could be given a free choice. This system should give offence to nobody.

The scientific part of the education should present no difficulty, as all Science is international by its very nature.

The teaching of games and recreations should be controlled particularly with a view to inculcating a sense of fairplay and control of temper, a fostering of the spirit of good sportsmanship. Children should be trained to be good winners or losers.

What of the education of Japanese youth? This is a complex psychological problem of Eastern mentality. It would appear, from the ease with which Japan has in the last decade become subject to German influence, infiltration, and propaganda, that the Japanese are an easily led and disciplined people, a number of them with definite leanings towards Western standards of living. This very lack of independent thought in the nation may go far towards making the task of the propagandist an easy one.

The Japanese War Lords, by the skilful fostering of the "Shinto" propaganda, have led the nation into war. If examined in detail, "Shintoism" has many features of similarity with the German paganism: the worship of ancestors (good or bad), complete lack of moral teachings, degradation of its womenfolk and utter disregard of the sanctity of human life or suffering. In point of fact, Shinto is *not* a "religion" in the accepted sense and its entire suppression, root and branch, temples, books, legends, histories and practices, could not be termed "religious persecution."

After the Japanese War Lords have been duly brought to trial and exterminated, therefore, the extermination of the "Shinto" teachings should at once take place in the schools and universities. This could be done by means of the appointment of "inspectors" and, since it is probable that Russia has a better understanding of the situation in this respect and is conveniently situated from a geographical viewpoint, they would be the best people to be entrusted with this task. It is quite possible that after twenty-five years or less of this antiseptic treatment, by which time a new Japanese youth will have reached untainted maturity, the Japanese nation may well be reborn and ready to take its place in the International brotherhood of the Nations of the World.

THE BIRTH OF A WEAPON.*

By BRIGADIER L. W. ROGERS.

NEW weapons don't just happen. Research and experiment go on all the time, both in peace and war, so that we can produce something newer, better, and more deadly in action than anything our enemies are likely to have. As a nation, we are a little disinclined to prepare for war in times of peace, but before this war some quite good things had been worked out and were put into production about 1935 or 1936. Examples are the 25-pounder, the 3.7 inch Anti-Aircraft, the 2-pounder, and the Bren gun.

But those who fought in 1940 and 1941 in France and in the Desert, and in 1942 in Burma, will remember how many of those guns you had, and how well served we still were by the weapons of the last war, such as the 18-pounder and the 4.5" Howitzer. And you will have seen the arrival of newer weapons devised during *this* war—such as the 6-pounder anti-tank, the Sten Gun, and new grenades.

You will also have noticed the persistence of other grand weapons handed down from the last war: the No. 36 Mills Grenade, the Vickers machine gun, the 3.7" pack howitzer and the good old No. 1 Rifle. The point is that we very rarely give birth to an entirely new weapon; it is a continuous development from what we had before, in order to meet new tactical demands and to counter progress made by the enemy, who is doubtless advancing along the same lines as we are.

The Army has a permanent technical staff who specialise in gunnery, infantry weapons, flame warfare and everything else required in a modern war. This staff welcomes ideas from any source, and calls on the best brains in the country to help them produce the goods; they co-opt men from the Universities, from private firms, in fact, from any place where men with ideas are to be found. In India this staff works under the Master-General of Ordnance.

There is a tremendous amount of work in producing a new weapon. First, the General Staff tell the designers what the Army requires: shall we say they want a new anti-tank gun to knock out a really super-tank which we know the enemy are producing. Something has got to be done about it—quickly. The General Staff give the detailed requirements to the Master-General of the Ordnance; the Master-General tells his staff to get on with it, and the designers then get to work. They bring out their drawing boards and eventually produce a sheaf of blue prints of what they *think* will do the job. *Think* is the right word, because each gun means masses of components, each one thought out and drawn separately, and dimensioned in thousandths of an inch. For the 6-pounder, for instance, approximately one thousand blueprints were required.

In practice, you can't go straight into production from these first blue prints; there are bound to be small functional defects in any new weapon, and only the designers can put these right. So the designers produce a Pilot Model; this the Technical Staff inspect thoroughly and make whatever alterations they think necessary. That means more blue prints and a second Pilot Model. When they are quite satisfied, and not until then, the factory is told to produce a small number for trials in the Service. The General Staff choose the unit; they and

* This broadcast talk from Delhi by the Director of Armaments was given chiefly for the benefit of troops, in order to give them some elementary knowledge of the subject.

the designers together produce a trial programme, and the unit is told what to expect: that is, the reason for the new weapon, the performance required of it, the rate of fire, the range, and everything else.

As a result of these trials, which include rough handling and every form of mechanical and chemical torture that can be thought of as possibly affecting the functioning of the weapon, improved models are produced until we get a model that performs satisfactorily and is suitable for quantity production. Both performance and procurability of materials must be considered and achieved. This is a long, tedious and expensive process but, as was well understood by David when about to meet Goliath over two thousand years ago, untested equipment must not be sent into battle.

In peace there is plenty of time, but even so the work of development goes on at high pressure and there is probably no finer example of this than the R. A. F. Browning Gun. This took many years to develop from the original model; it was a case of endless trial, modification, re-trial and so forth, but the final result was a marvel of reliability and it may well have been that its reliability was an important factor in the Battle of Britain.

But the Army has done some good things, too. Our anti-tank weapon at the beginning of this war was the 2-pounder, a very good little equipment but the Hun put more armour on his tanks and so we wanted something heavier. The technical staff at Home had foreseen this, and the result was the 6-pounder, which arrived just in time to lay out the first German Tiger tanks which appeared in North Africa in 1943.

However, having got a satisfactory design, we now have to get it made. The processes involved so far may seem to take a very long time, but it is all absolutely necessary; we cannot afford to give the Army an untried weapon. The design staff work all through in close touch with the manufacturer and, in this country, the manufacturer is in the main the Indian Ordnance Factories. I wish I had time to tell you in detail what an extraordinarily good job of work those factories have done.

In all production, whether it is weapons, or motor cars, or sewing machines, you have got to have independent inspection. By independent inspection I mean a staff responsible to the inventor and quite independent of the manufacturer, and their task in life is to ensure that the standard of the product is fully maintained and exact to design. Without such a staff, inferior weapons or other articles would soon reach the Service. This independent staff is therefore a vital link in the chain, and on them rests the entire responsibility for the standard of the weapons passed into the Service. The Ordnance Factories and any civil trade capacity employed are run by the Supply Department, and inspection is done for the Army by the Master-General of the Ordnance, who has a special staff for the purpose included in the technical staff I mentioned earlier.

There has been frequent testimony in this war that British weapons are the best. This is largely due to the skill of the workers in the munition factories at Home and the inspection which is carried out at various stages of manufacture by Army inspectors. And what goes for Home goes for India, too.

As soon as we have got our weapon on to the manufacturing lines, a very important factor is the rate at which it can be produced. The General Staff indicate a production "target," which is passed to the manufacturer by the Master-General of the Ordnance. The manufacturer reports how many he can manufacture by monthly quotas until the target is reached. Occasionally a

target takes a considerable time to reach: most of you will appreciate how difficult it is sometimes to *hit* a target; and the same thing applies to a production target.

When production is established, the stores are passed over to the Ordnance Depots and so into the hands of troops. Once the new weapon is in the hands of troops, you may be sure that the man who uses it will find some means of improving it. This is as it should be, because it is the soldier who fires the gun, and it is this soldier whose life depends on the performance of the gun.

The viewpoint of the soldier familiar with actual battle conditions is therefore essential, and it is the task of the designers to embody these skilled observations in new and superior weapons. Sometimes, of course, the suggested "improvement" isn't an improvement at all, and we couldn't possibly adopt it, but we welcome every suggestion that may lead to an improvement in the performance of any weapon in the Service.

Every suggestion is most carefully studied by experts and, if it is worth adopting, we adopt it; if it's something really valuable, a reward may be paid, or perhaps your name may be tacked on to it. So, if you think you know of a way of improving the shooting of any of our weapons, send it in. It may prove extremely useful.

When all is said and done, the quality of an Army is the quality of its weapons. The finest trained Army in the world will never win battles unless its weapons are better than those of the enemy. Indeed, as was said comparatively recently, an Army with inferior weapons can give an enemy nothing but a dirty look. Weapons can only be produced by expert designers, meticulous inspection and conscientious manufacturers, and all these we have here in India--all of them doing a very fine job. No effort is ever spared in evolving the best weapon possible, and that is where you come in. You are the user, and only you can tell us how the weapon stands up to all the use and abuse it gets on Service. You'd be surprised at the number of improvements we've adopted because some bright lad said: "But I think it ought to go *that way*." So, never hesitate to let us know.

INDIA'S PHENOMENAL WAR EFFORT

By THE EDITOR.

NOW that the war in Europe is over, a more complete picture of India's contribution to the triumph may be told. It is a worthwhile story, for long months before the full power of Britain and America's aid to the forces in the Middle East became effective India was almost wholly responsible for the supply of bulk stores to the Mediterranean theatre.

Let us start with steel. At one time, when certain shipments were lost *en route* from the United Kingdom, an urgent inquiry was made to India, whence 7,000 tons of steel sheets rolled in this country were shipped without delay for the manufacture of anti-tank mines. At that time they could not have reached Egypt without dangerous delay, but their early arrival enabled vast minefields to be constructed in the Middle East.

Steel pipes carried water across the arid desert; Indian engineers constructed the railway linking Mersa Matruh with Tobruk and at one time India was solely responsible for the supply of rolling stock, locomotives, etc. to the Middle East. India, too, supplied timber for railway sleepers, jetties, lorries, ammunition boxes, telegraph poles and for a hundred and one other uses. From India's naval yards came many assault and self-propelling landing craft.

New industries have been developed in this drive to supply armies. Here are a few examples: electrical cables of many kinds, electric fans, water valves and pumps, porcelain cleats, insulators and fuse-holders. A new industry of plastics was started, too, to make bakelite lamp-holders and ceiling roses.

An outstanding contribution in this field was the supply of dry batteries and cells. Communication between aircraft from air to ground and *vice versa* depends largely on the efficiency of the batteries the planes carry. Shipments to the Middle East from the United Kingdom by the long Cape route impaired the batteries' effective life, and arrangements for the production of a particular type of battery required for the R. A. F. were therefore begun in India during the latter part of 1941. Since then India has supplied millions of cells for the R. A. F. alone. If other services are taken into consideration, the number of batteries supplied would reach astronomical figures.

Nearly 90 per cent. of the tents in Egypt and Libya came from India, where 63 new tent factories were established in 1940. An indication of the phenomenal growth of this industry can be gathered from the fact that tentage contracts placed in 1939-40 were valued at approximately Rs. 1 crore; in 1940-41 they totalled Rs. 8.3 crores; in 1941-42 they increased to Rs. 13 crores; and purchases for 1942-43 amounted to Rs. 16 crores. A great increase in the manufacture of parachutes and of Supply Dropping parachutes took place in 1944.

The peak year for the supply of tailored items of clothing was 1943, when in one month no fewer than 12,000,000 were made. In the fifth year of the war Indian Ordnance clothing factories supplied just under 7,000,000 items a month. Eight ordnance factories employed 90,000 people directly, while indirectly were the thousands employed by tailoring contractors throughout India.

BODIES FOR VEHICLES.

Many thousands of composite wood and steel bodies have been completely produced in India. The first Indian-built armoured vehicle was produced early in 1941, and in the fifth year of war actual deliveries to the Army and Air Force approximated to the total of four years' previous deliveries. In 1944-45 vehicles assembled from parts sent from Canada and the U. S. A. exceeded ten times the pre-war figure, and assembly arrangements were also undertaken for a large number of vehicles for the United States Army. Before the war there were only 5,000 armoured vehicles in service; by the end of 1943 there were over 100,000. Thousands of special chassis have been obtained from Canada and U. S. A. under lend-lease and assembled by Indian workmen. The bodies for these chassis have been completely manufactured in India.

India now possesses her own factories for compressing hydrogen gas for the maintenance of barrage balloon stations. In 1944-45 considerable expansion in plant for the production of Breathing Oxygen was in hand. Steps have also been taken to expand distillation capacity to meet the increasing Defence Service needs in methyated and rectified spirits and solidified fuel.

With an over 100 per cent. increase in production since the beginning of the war, India's chemical industry has now come into its own. Soda ash, caustic soda, bleaching powder, chlorine, sodium and potassium bichromates, chromic acid, sodium thiosulphate and calcium chloride are some of the more important chemicals now being produced in large quantities in India for the first time.

In regard to medical stores, the reader will forgive a few figures. Over 50,000 stretchers, more than a million blankets, 250,000 mosquito nets, 1,500,000 water-testing tablets, and 160 tons of anti-mosquito cream, as well as 336,000 ounces of castor oil were supplied. Indeed, India's contribution of medical stores covered 1,500 items.

Heavy demands have been made for many indigenous drugs, and Government has greatly assisted industrialists to expand their production. Drug-making equipment, comprising 18 items, has been secured from the U. S. A. under lease-lend and allocated to various firms. India has, in fact, been producing the entire requirements of the Allies as regards strychnine, caffeine, santonin, etc. Recently the production figure for strychnine reached a record high level of 15,000 lb. per annum. Penicillin is also now being produced in India.

Output of medical stores has gone up to nearly 60 per cent. of India's total requirements, from only 25 per cent. at the beginning of the war. Nearly 300 drugs and medicines previously imported are being produced locally, and most types of hospital and theatre equipment and standard and orthopaedic instruments are being manufactured. Several new firms have been developed to a satisfactory pitch for the production of high grade surgical instruments.

RUBBER AND LEATHER

India has greatly helped to solve the problem of rubber shortage by strictly conserving rubber and tyres, by stimulating production of rubber plantations, and by starting factories for reclaiming rubber. New plants for the manufacture of tyres, respirators, special types of hose, etc. have been established, and several factories previously making footwear have been converted for the manufacture of war requirements.

The production of all tanneries capable of making leather to Government standards has been organised and controlled. In 1941 over seven and a half million pairs of footwear were produced; in 1942 this figure rose to nearly

sixteen and a quarter millions. The Government Harness and Saddlery factory, producing web equipment, paulins and other canvas goods, has expanded its staff from 2,000 to 18,000 men, and the combined total output of the headquarters, branch factories and contractors is still valued at about Rs. 15—20 crores per annum; practically the whole of this is derived from indigenous sources.

Remarkable increases occur under the heading of "Miscellaneous Stores," for whereas in terms of value the value of such stores supplied in 1940-41 amounted to Rs. 71 lakhs, the figure for the following year was Rs. 488 lakhs. Among the items under this head were bicycles, sewing machines, spring balances, fire-fighting equipment, spirit lamps, tommy cookers, electric bulbs, boot polishes, mustard and cashew nut oil, crash helmets, jultac containers for dubbin, safety razor holders, blades, etc.

ARMAMENT PRODUCTION

In the field of purely armament production, India has performed remarkable feats. Before the war there were only a few ordnance factories constituting the specialised munitions industry in India. But with the change in the technique of warfare it was necessary to change the character of their production. The ammunition industry of India did not really begin its tremendous expansion until France fell. It was clear that India could no longer depend on Britain, who herself, with her factories subjected to continuous bombing, was forced to look to other countries for vitally needed supplies.

The implementation of the Chatfield Plan started just before war broke out. It was evolved to expand all existing Ordnance Factories and to instal new types of machine tools; it provided for the erection of a new factory for the manufacture of high explosives, including a plant for the production of toluene and the expansion of the cordite factory. Post-Chatfield measures comprised a number of projects introduced subsequently, the most important being a project for the expansion of India's production of S. A. A. by 12 million rounds per month. Expansions at the cordite factory, metal and steel factory and ammunition factories were also planned under these measures.

Soon after the outbreak of war it was realised that India had to play a larger part in the production of armaments than had been anticipated under the Chatfield Plan. In 1940 the Ministry of Supply Mission, led by Sir Alexander Roger, came from Britain to examine the possibility of further expansion of armament production in India. To meet H.M.G.'s requirements the Mission accepted plans prepared by the authorities in India for 21 new projects, including alloy steels for guns and small arms, gun forgings, bayonets, light machine guns, gun carriages, shells, fuzes and primers, high explosives, cordite, toluene and motor benzol.

With the entry of Japan into the war came the Transplantation Plan, which involved the building of five new Ordnance factories and the expansion of two of the factories under the Eastern Group plan. Further expansion of the production of armaments, new projects, including the maintenance of imported artillery equipment, aircraft instruments, etc. were undertaken. To-day the number of Ordnance factories operating in India is three times the number at the beginning of the war.

On the engineering side a new steel works for the production of alloy steels was brought into production, and new rolling mills were installed. A 2,000 ton forging press for guns, including anti-aircraft guns, has been in operation. New types of shells, including various armour-piercing anti-tank types, have been produced, and a plant established for making light machine guns. Steel

factories have provided steel suitable for the latest type of field guns and barrels, ammunition and bombs.

To operate these newly constructed factories major schemes of water supply, electric supply, sewage disposal, etc. had to be undertaken. New roads and railway communications were laid down, and arrangements for housing the personnel made. At one of the larger projects the housing estate provides accommodation for 13,000 staff and 12,000 workmen and their families. The labour force employed in Indian Ordnance factories in 1939 was 15,000; in 1944 it had risen to 100,000. Factory training schemes to train workers for skilled jobs turned out about 50,000 workers.

The Ordnance factories were reinforced by railway and trade workshops for the manufacture of components. The production of the 4.5 inch howitzer and 25-pounder shell forgings was established in railway workshops, and orders for no less than 437 items normally manufactured in Ordnance factories were placed outside. At the outbreak of war there were about 600 such workshops known to be available. Some 1,500 engineering workshops are now being used—840 for general engineering items, over 300 for small items, and 345 (plus 20 railway workshops) for munition components.

Even the jute industry was harnessed, thus providing a feeder service for munitions parts. The mills concentrated on the manufacture of base plates and transit plugs for shells, cast iron for defence uses, and component parts for armoured vehicles. Their average production rose to 200,000 units per month.

This survey of India's war effort is obviously not the full story, but it reveals a story of unprecedented expansion, which, when applied to peace time production, proves beyond doubt that India's place in the post-war industrial world is assured.

LETTERS TO THE EDITOR**DEFENCE POLICY AND MUNITION PRODUCTION***To The Editor of the U. S. I. "Journal."*

DEAR SIR,

In his thoughtful article on "Post-war Planning for the Defence Services" published in your April issue, the author makes the following suggestions in regard to the material side of war preparedness:

"(a) Defence policy should cover the organised indigenous production of war materials to the greatest possible extent: armaments, ships, tanks and vehicles, aircraft, basic chemicals, etc.

"(b) But all this should be left to a Civil Department or Departments, and Defence Departments should merely be the indenter and stockholder, etc."

Few will quarrel with the desirability of the first. But the extent to which it can be achieved depends not on policy decisions, but on hard material facts that are rarely appreciated. It is the missing "bits and pieces" of components that have in this war prevented, and for a long time to come will prevent, the ideal being attained.

Even in the highly industrialised countries of the West any famous motor-car industry is dependent on perhaps as many as 250 subsidiary independent companies that make a thousand and one specialised components: the divers parts of the electrical system, magneto, carburetter, plastics, tyres, gauges and dials, ball bearings, high grade alloy castings (ferrous and non-ferrous) etc.

Up to 25 years ago motor-car manufacturers the world over bought their engines from specialist concerns in just the same way as aeroplane manufacturers do to-day. It is too easy to build a dockyard or a tank factory. But these are largely assembly plants, and must be backed by scores of parallel and subsidiary industries before the objective is gained.

As regards the second point, perhaps the greatest lesson India has learnt in munition production during the war concerns a matter that received careful attention and planning in the U. K. and in the U.S.A.—but not in India. In brief, Government control and direction of munition production in war, in its broadest sense and over the whole field, must be adequately and competently represented on the floor of all the workshops of the country.

By no other method can either the maximum production potential be exploited or the goods be obtained in time. This is not so much because loyalty to a war effort not infrequently resides deep in the trouser-pockets of certain industrialists, as it is that by no other system can day-by-day and hour-by-hour production priorities be decided, production difficulties be solved and missing materials be immediately secured.

None but Government can fulfil these functions. India started the war without these essential men and, once the war had started, it was manifestly impossible to secure them. Her short-lived experience of munitions production in 1914—18, lasting a few months only, had been all-too-short for the lesson to be learned.

But the case in the U. S. A. and in the U. K. was far different. The former had raised and trained in peace a cadre of reserve officers running into six figures that, on war being declared, were at once drafted into the workshops and offices of industry; into mines, docks, transportation, etc.

The whole war potential was geared to a joint planning and direction *cum*-difficulty-solver machinery. Every reserve officer had been trained in peace in the industry he was earmarked to join in war. Whilst not so elaborate, the arrangements in the U. K. were not dissimilar. The majority were in position when war finally broke out.

In this lies the answer to the question many may have pondered over—how was it possible in those countries to take over inefficient or recalcitrant industries overnight and by a stroke of the pen? The directing brain of government was already there. All that was needed were the hands, and these would come from the defence Forces if necessary.

To my mind this constitutes in itself a sufficient reason for placing the responsibility for munition production in war in India (and in peacetime preparation for it) under the Defence Department, at least until such time as the stage of industrialisation which I have described earlier in this letter has been reached.

Then, and only then, can industry, as in the U. S. A. and the U. K., contribute the bulk of the reserve of technical officers for the purpose. Until then, which will last considerably over a decade, there is no alternative but for the Defence Department to train its own reserve. And if it is to be the policy to depend more and more on India supporting her own defence forces, the need for such a special reserve cannot be overlooked in the post-war reorganisation.

There are many other arguments against placing the responsibility for war production under a Civil Department at the existing stage of India's development, but it is not the purpose of this letter to enumerate them all.

Yours faithfully,
"MILLSTONE."

Simla :

ONE-CLASS BRIGADES

To the Editor of the U. S. I. "Journal."

DEAR SIR,

The assumptions made in your April issue by "Istufeen" in his letter advocating one-class brigades are so remarkable that many readers may wonder if they can be the considered opinion of an officer with recent experience of a mixed brigade.

My view, formed during a period of fifteen months as Brigade-Major of an Indian Infantry Brigade in S.E.A.C. are entirely opposed to those of Istufeen.

Let me take Istufeen's assumptions in the order in which he makes them :

- (a) "All classes would greatly prefer it." Has "Istufeen" never heard of the many occasions when British battalions, under orders to leave a mixed brigade, have begged to be allowed to remain, and have loudly praised the virtues of their Indian comrades? Has he never seen the genuine joy with which Indian troops have welcomed the arrival in their formation of a British battalion which they had known in another area?
- (b) "Brigade spirit would be terrific." Brigade spirit in many mixed brigades is in every way equal to the spirit of the most famous British formations. This I know from personal experience of both.

- (c) "It would raise the standard". Would it? Surely, in a mixed brigade, each battalion is continuously striving to prove itself better than the two others of different nationalities. And the final result is *not* always the same!
- (d) "It would be good for morale." Why? This bold statement requires some amplification. If "Istufeen" wishes to see formations with really high morale and "formation-spirit" second to none, let him visit the Indian Infantry Brigades of Fourteenth Army and 15 Indian Corps.
- (e) "More amenities could be provided." This may be to a certain extent true. But amenities in the forward areas are now quite good and the stumbling block to further improvement is more a matter of transportation than of organisation of formations.
- (f) "The rationing problem would be greatly simplified." Again partly true. But would "Istufeen" completely "British-ise" or "Gurkha-ise" his British and Gurkha Brigades? What about Signals personnel, Sappers, Field Ambulances, Composite platoons and the other essential personnel who are nowadays almost always an integral part of the Brigade?

So much for my views on "Istufeen's" assumptions. I consider, however, that he has missed the most important point of all. Has he considered the camaraderie which grows up between British, Indian and Gurkha troops serving in the same formation? Has he considered the long-term effect of their mixing, both at work and play?—and they *do* mix, as most of us have seen for ourselves.

Is not the fact that the best type of ordinary decent working man of both countries are, day by day, seeing more and more of each other and, perhaps, realizing something of the "other chaps" point of view, certain to prove of some importance in establishing friendly relations between the races in days to come?

Istufeen stresses the points he made as war-winners. I would like to stress those which I have tried to argue as winners of the peace.

Yours faithfully,

Staff College, Quetta :

"BRITISH SERVICE."

THE DERIVATION OF "NEPAL"

To the Editor of the U. S. I. "Journal."

DEAR SIR,

Far be it from me to cross swords with such a language expert as Colonel Gifford, but in the third instalment of "What's in an Indian Name?" in the April *Journal* he has attempted to include Nepali history.

He refers to the village of Gorkha in the Nepal Valley. The town of Gorkha is some considerable distance from the Valley, being beyond the Tehsil of No. 1 West in the Jilla bearing the same name of Gorkha. It was from here that King Prithi Narain led his army to capture the Valley, and later the whole country now known as Nepal, as well as further areas.

Whilst on this subject why does Colonel Gifford produce this Niyam-pala derivation of Nepal? The old belief was that the word came from Ne-pala—the Cherished of Ne, who is the patron saint.

Yours faithfully,

R. G. LEONARD,
Colonel.

Kunraghat, U.P.

"DOWN ON THE FARM"—IN NEW ZEALAND

To The Editor of the U. S. I. "Journal"

DEAR SIR,

In your October issue of last year "RASP" takes Colonel Bunbury to task for painting too rosy a picture on the topic of farm life which the latter had written in a previous issue of the *Journal*. So far as I remember, Colonel Bunbury's article suggested that England had no use for the *Bouche inutile*, but required every one, even the retired officer, to be an active producing member of the community.

Apparently "RASP," having come into close contact with rural conditions in one part of England, has found many disadvantages, and therefore to him *Qu'hailand* has its appeal. His experience makes one realise the rather primitive conditions still existing in some places—but surely those conditions could be improved by the initiative, energy and commonsense of those for whom Colonel Bunbury's article was primarily written?

What does the alternative *Qu'hailand* offer? Certainly some advantages as to the material mechanics of living—town services, amenities and amusements. But what an aimless, purposeless existence! Surrounded by other *Qu'hais* to pass the time with some golf, discussion on the newspaper topic of the day and reminiscences of what they did in 1917 or 1941 with their brigades and battalions—all past and not to be changed. What are they doing for the present and future welfare of their country? At 50 one should still be capable of many years of useful work.

Some members may therefore be interested to know what life "down on the farm" in New Zealand is like—and especially with possible demobilisation in the offing.

First, I agree that capital is necessary, as well as the right kind of wife and a natural liking for the life and work.

My farm covers about twelve acres and is situated about six miles from Tauranga, a growing coastal town which may well be termed the Bournemouth of New Zealand. Sea, river and bush are all within reach; whilst Auckland, the Dominion's largest city, and Rotorua, the thermal wonderland, are within easy motoring distance. The climate is one of the best in New Zealand, many of our autumn and winter days reminding one of October in the Simla hills.

On taking possession of the farm nine years ago it was necessary to carry out the following work:

- (a) Enlarge and modernise the then existing cottage to bring it into line with present-day ideas on workers' accommodation.
- (b) Sink a bore and instal an electric pump to ensure a satisfactory water supply.
- (c) Build a house and surround it with a garden.
- (d) Prepare land and shelter for a citrus orchard.

The first three were completed in six months, when permanent occupation became possible. To-day, some of the garden trees are 20 feet high, the citrus trees average 10 feet and the shelter hedges were topped at 12 feet last year.

Electricity removes the drudgery of housework so feelingly described by "RASP." Here the writer prepares the early morning cup of tea within five minutes with the aid of the electric jug. In winter the bathroom and dining room can be easily warmed by specially designed electric heaters. Electric hot

water, stove, Frigidaire and Electrolux ease the work of the lady of the house, and necessarily too, because domestic help is not available.

My normal day is to assist in the milking shed before breakfast, seasonal work on the farm or in the orchard during the morning, and work in the garden in the afternoon. On farm, orchard or garden there is always something required to be done. For the writer one of the joys of the life is the planning ahead necessary for running the farm.

The daily work in the open air with so much sunshine ensures health and fitness. Shirt and shorts—frequently no shirt—is the normal dress throughout the year. At the end of the year one not only has the satisfaction of being fit, but also of having supplied the people of Britain with one ton of butter and half ton of bacon, and the people of the Dominion with many cases of health-giving grapefruit.

Financially, for the first six years, during the build-up of the farm and orchard, losses were incurred. Experience, too, had to be bought. During the last three years, as the citrus trees came into production, profits have been made. Although not large, these returns, given reasonable prices, can and should remain satisfactory.

On climate alone, New Zealand should become the dairy farm of the World. The country lacks the raw material and population for industry. If she is to follow a safe economic path, New Zealand should maintain her primary industries. Unfortunately, at present the trend is the other way. Uneconomic town industries are being fostered and the farmlands neglected. A price will have to be paid for this policy sometime in the future.

Economically the prosperity of the Dominion is closely linked with that of Britain. Of New Zealand exports, 98 per cent. are the product of the farms, for which the principal market is Britain. If Britain is prosperous, New Zealand will be prosperous. New Zealand cannot stand alone.

Finally, should any reader think of settling in New Zealand, and shortly many will have to consider the question of settlement somewhere, the writer would advise caution. Come and see first before reaching a decision. Time spent in reconnaissance is seldom wasted.

Yours faithfully,

T. R. DAWE,

8th Punjab Regt. (Retired).

Tauranga,
New Zealand.

NOTES BY THE SECRETARY

Address of Secretary

Will members please note that letters for the Secretary should henceforth be addressed to Lieutenant-Colonel H. C. Druett, Secretary, United Service Institution of India, Edn. 3, G.H.Q. A.P.O., Delhi. Requests for books and communications regarding subscriptions, etc. should be sent as in the past to the headquarters of the Institution in Simla.

Annual Meeting of Council

Lieut.-General Sir Clarence Bird, K.C.I.E., C.B., D.S.O., presided at the annual meeting of the Council, in the unavoidable absence of the President, Lieut.-General Sir John Swayne, K.C.B., C.B.E.

In his annual report for 1944 the President was glad to report a continual rise in membership, which had again reached a record figure. Financially the position was satisfactory, despite the increased costs which had to be faced in war time.

The President expressed his thanks to Major-General H. V. Lewis, C.B., C.I.E., D.S.O., M.C., and to Group Captain E. L. Tomkinson, D.S.O., R.A.F., for their services as members of the Council. He also welcomed Lieut.-General Sir H. B. D. Willcox, K.C.I.E., C.B., D.S.O.; Lieut.-General R. M. M. Lockhart, C.B., C.I.E., M.C., and Major-General J. B. Dalison, O.B.E., to the Council.

Honorary Members of Council.—It was decided to extend cordial invitations to the following officers to become Honorary Members of the Council:

Lieut.-General Sir Oliver W. H. Leese, Bart, K.C.B., C.B.E., D.S.O., C-in-C, A. L. F., South East Asia.

Air Marshal Sir Keith R. Park, K.C.B., K.B.E., M.C., D.F.C., Allied Air Commander-in-Chief, Air Command, S. E. A.

Admiral Sir Arthur J. Power, K.C.B., C.V.O., Commander-in-Chief, East Indies Station.

Lieut.-General F. A. M. Browning, C.B., D.S.O., Chief of Staff, A.L.F., S.E.A.

Air Marshal L. N. Hollinghurst, C.B., C.B.E., D.F.C., R.A.F., Air Marshal Commanding Base Air Forces, S.E.A.

Executive Committee.—It was decided that the Executive Committee for 1945-46 should be composed of the following:

Major-General J. B. Dalison, O.B.E., (Chairman); Lieut.-General Sir Thomas Hutton, K.C.I.E., C.B., M.C.; P. Mason, Esq., O.B.E., I.C.S.; Captain H. E. Felser Paine, R.I.N.; and Major-General R. A. Savory, C.B., D.S.O., M.C.

Council Election.—As a result of the recent election the following new members were elected:

Lieut.-General Sir H. B. D. Willcox, K.C.I.E., C.B., D.S.O., Chairman, Army Re-organisation Committee; Lieut.-General R. M. M. Lockhart, C.B., C.I.E., M.C.; Major-General J. B. Dalison, O.B.E.

Lieut.-General R. M. M. Lockhart having since been appointed G. O. C. in C., Southern Army, has accepted an invitation to become a Vice-Patron of the Institution.

Council members who were re-elected were :

Lieut.-General Sir Clarence Bird, K.C.I.E., C.B., D.S.O.; Lieut.-General Sir Thomas Hutton, K.C.I.E., C.B., M.C.; P. Mason, Esq., O.B.E., I.C.S.; Captain H. E. Felsner Paine, R.I.N.; Major-General R. A. Savory, C.B., D.S.O., M.C.; and Major-General D. A. L. Wade, O.B.E., M.C.

New Members

The following new members have been elected to membership of the Institution during the past three months. In addition, six officers' messes have become subscribing members during the same period :

Afzal Hussain, K.B. Mian M., I.A.S.,	Nicolson, Captain J.I.,
Atkinson, Major J.S.,	Noble, Captain A.G.,
Blood, Lieut.-Colonel J.A., O.B.E.,	Oliffe, Colonel F., O.B.E.,
Blood, Brigadier W.H., M.V.O.,	Packwood, Colonel R.H., O.B.E.,
Boyce, Brigadier T.W., M.C., M.M.	Panikkar, Dr. K.M., Bar-at-Law,
Chambers, Lieut. T.A.M.,	Parelwala, Captain H.B.,
Cope, Major S.A.,	Park, Air Marshal Sir Keith R., K.C.B.,
Douglas, Major G.,	K.B.E., M.C., D.F.C.,
Fairhead, E.C., Esq.,	Partridge, 2/Lieut. G.W.,
* Gradidge, Brigadier J.H., O.B.E.,	Peters, Lieut. K.G.
Graham, Captain R. McD.,	Ram Chandra, Esq., C.I.E., M.B.E., I.C.S.
* Grigor, Lieut.-Colonel W.C.,	Roberts, Major C.M.A.R., M.C.,
Gurbaksh Singh, Captain.,	Robertson, Colonel W.D.,
Hexley, Lieut.-Colonel T.W.P., M.B.E.,	Saner, R.M., Esq., M.B.E., I.C.S.,
Hickie, Brigadier G.W.C., C.B.E.,	Smith, F.L., Esq., I.C.S.,
Himayet Beg, Major M.,	Smith, Lieut.-Colonel F.M. M.C.,
Ingall, Lieut.-Colonel R.M.,	Sutcliffe, Lieut. F.,
Jones, I.E., Esq., I.C.S.,	* Trestrail, Major S.E.A.,
Kak, Lieut. S.N.,	Trivedi, Sir C.M., C.S.I., C.I.E., O.B.E.,
* Lentaigne, Major-General W.D.A.,	I.C.S.,
C.B.E., D.S.O.,	Warren, Major J.F.,
Llewellyn-Evans, Captain T.G.,	White, S./Lieut. J.J., R.I.N.V.R.,
MacFeat, Colonel, P.D., M.C.	Wright, W. McK., Esq., I.P.,
Magill, Lieut.-Colonel R.N.,	* Young, Colonel P., D.S.O., M.C.
Marshall, Captain M.L.J.,	
Miller, William, Esq.,	
Morgan, 2/Lieut. J.A.,	

Birthday Honours List

Among those on whom His Majesty conferred honours in the Birthday Honours List were the following members of the United Service Institution of India :

K.C.B.—Lieut-General R.B. Deedes, C.B., C.B.E., M.C., Adjutant-General in India.

C.B.—Major-General A.B. Blaxland, O.B.E., Colonel A.D.P., Campbell, Major-General W.H.B. Mirrlees, D.S.O., M.C.

C.S.I.—M.R. Coburn, Esq., C.I.E., O.B.E., Additional Financial Adviser, Military Finance, Government of India.

G.C.I.E.—Sir Jeremy Raisman, K.C.S.I., C.I.E., lately member of the Governor-General's Executive Council.

*Life Members.

C.I.E.—Brigadier N.R.C. Cosby, M.C., Inspector-General, Frontier Corps, N.W.F.P.; J.C.W. Eustace, Esq., I.C.S., Provincial Organiser, National War Front, Punjab; Brigadier R.C. Howman, O.B.E., Director of Security, G.S. Branch, G.H.Q.; Captain W. J. Lifton, R.I.N.; Brigadier H.D.H. Nepean, D.S.O., Deputy Military Adviser in Chief, I.S.F.; Major-General C.A. Osborne, Commander, Kohat District; Colonel E. S. MacL. Prinsep, O.B.E., Asstt. Q.M.G., Lucknow District.

Knighthood.—J. G. Acheson, Esq., C.I.E., I.C.S., Resident in Kashmir; C. M. Trivedi, Esq., C.S.I., C.I.E., O.B.E., I.C.S., Secretary, War Department.

O.B.E.—Lieutenant-Colonel L.B. Burrows; Brigadier N.G. Gane, 6 Rajput Rifles; Lieutenant-Colonel P.B. Janson, Commandant, Tochi Scouts, N.W.F.P.; J.L. Leydon, Esq., Burma Frontier Service; Lieutenant-Colonel R.P. Ridgeway, T.D.; Colonel J.P. Shelley, Grenadier Guards (retd.); Colonel A.E. Stevens, R.E.

For Gallantry

The following awards to members of the Institution have been approved for gallant and distinguished conduct in the field:

Second Bar to D.S.O.—Brigadier R.C.O. Hedley, D.S.O., late 5 Royal Gurkha Rifles.

Bar to D.S.O.—Brigadier C.H.B. Rodham, O.B.E., D.S.O., M.C., late Royal Garhwal Rifles.

D.S.O.—Major J. S. Bolton, M.B.E., 9 Gurkha Rifles; Brigadier G.A.P. Coldstream, late 13 Frontier Force Rifles; Lieutenant-Colonel D. G. T. Horsford, 8 Gurkha Rifles, Lieutenant-Colonel J.A. Hubert, 16 Punjab Regiment; Major J. D. Maling, M.C., Sikh Light Infantry; Brigadier C.H.B. Rodham, O.B.E. M.C., Commanding Indian Infantry Brigade; Lieutenant-Colonel G.P.V. Sanders, 5 Royal Gurkha Rifles; Brigadier J. C. Saunders-Jacobs, Commander, Indian Infantry Brigade; Lieutenant-Colonel E. V. Whitehead, 8 Gurkha Rifles; Brigadier M. V. Wright, 10 Baluch Regiment.

Bar to M.C.—Captain W.G.H. Smith, M.C., 10 Gurkha Rifles.

M.C.—Major J.E. Benskin, 5 Royal Gurkha Rifles; Captain R.E. Blair, 7 Gurkha Rifles; Captain E. Hadfield, Indian Artillery; Major W.M. Mackay, 5 Mahratta Light Infantry; Major R. D. MacLagan, Seaforth Highlanders; Captain D.R.A. McCorkell, Burma Regiment; Major Mian Hayand Din, M.B.E., 12 Frontier Force Regiment.

M.B.E.—Major G.L. Auret, 14 Punjab Regiment; Major F.F.D. Ward, R.I.A.S.C.; Major B.A.W. Hooper, 10 Baluch Regiment.

Gold Medal Essay Competition

Entries for the 1945-46 Competition must reach the Secretary by June 30, 1946. The subject selected for the next competition is:

"CO-ORDINATION AND CONTROL IN PEACE AND WAR OF THE FORCES OF ALL THREE SERVICES, BRITISH AND DOMINION, IN THE INDIAN OCEAN AND NEIGHBOURING TERRITORIES."

The interdependence of the three Fighting Services, one upon another, has been demonstrated time and again during the present war. The success achieved when the three have planned and operated with one object and under a unified direction has been remarkable. This has, however, tended to create a complicated system of command with large staffs.

Bearing in mind the necessity for the three Services to continue to train to operate as one whole, and the danger in peacetime of each retiring into its own watertight compartment, examine the possible ways of evolving from our own war experience a simplified system of command which will ensure the closest inter-service co-ordination for the Commonwealth forces in peace and in war.

A definition of the geographical scope has been left to the essayist to develop.

Full details of the rules governing the Competition will be found elsewhere in this issue.

MacGregor Memorial Medal

Recommendations for the award of the MacGregor Memorial Medal should be submitted by May 1 of each year.

The MacGregor Memorial Medal was founded in 1888 as a memorial to the late Major-General Sir Charles MacGregor, who founded the United Service Institution of India. It is awarded for the best military reconnaissance or journey of exploration of the year which, during the war, may have been achieved during an escape from a Far Eastern enemy country into, for instance, India.

The awards are made in June, and are : (a) For officers, British or Indian, silver medal, and (b) for soldiers, British or Indian, a silver medal with Rs. 100 as gratuity. For especially valuable work, a gold medal may be awarded in place of one of the silver medals, whenever the administrators of the Fund deem it desirable. The Council may also award a special additional silver medal, without gratuity, to a soldier, for specially good work.

The award of the medals is made by His Excellency the Commander-in-Chief, India, as Vice-Patron, and the Council of the United Service Institution of India, who were appointed administrators of the Fund by the MacGregor Memorial Committee.

Eligibility for the award is open to : (a) Officers and other ranks of all forces of the British Commonwealth of Nations while serving with the India Establishment, or with South East Asia Command during the present War. (b) Officers and other ranks of the Royal Indian Navy, Indian Army, Indian Royal Air Force and of the Indian States Forces, wherever serving. (The term "Indian Army" includes the Indian Auxiliary and Territorial Forces, Frontier Militia, Levies, Military Police and Military Corps under local governments.)

Personal risk to life during the reconnaissance or exploration is not a necessary qualification for the award of the medal : but, in the event of two journeys being of equal value, the man who has incurred the greater risk will be considered to have the greater claim to the award.

When the work of the year has either not been of sufficient value or notice of it has been received too late for consideration before the Council Meeting, the medal may be awarded for any reconnaissance during previous years considered by His Excellency the Commander-in-Chief in India to deserve it.

The medal may be worn in uniform by Indian soldiers on ceremonial parades, suspended round the neck by the ribbon issued with the medal. Replacements of the ribbon may be obtained on payment from the Secretary, United Service Institution of India, Simla.

Library

An extensive library is available for members of the Institution at the headquarters in Simla. Books may be loaned to members resident in India, and those borrowing works in person must enter particulars in the book provided. Members stationed outside Simla may receive books on application; they will be sent post-free by registered parcel post, and must be returned within two months, or immediately on recall. No more than three volumes may be issued at any one time. Reference books and works marked "Confidential" may not be removed from the library.

Members wishing to retain a work for more than two months should notify the Secretary to that effect. If, after the expiration of three weeks from the date of issue a book is wanted by another member, it will be recalled. Should a book not be returned within fourteen days of the date of recall, it must be paid for, the cost of lost or defaced books being refunded by the member to whom they were issued. Such volumes which have become out of print will be valued by the Executive Committee, the members being required to pay the cost so fixed.

The issue of a book to any member under the above rules implies the latter's agreement with the regulations.

Contributions to the Journal

Articles on matters of military, naval and air force interest are welcomed. They should not exceed 5,000 words in length, and preferably should run to 3,000 words. Contributions should be typewritten, double spacing, and in view of the paper shortage, may be typed on both sides, providing a moderately thick paper is used.

Contributors unable to submit articles already typed may send them in manuscript form, and arrangements will be made for them to be typed in Simla, the small charge being deducted from the contributor's fee. Payment is made on publication, at rates up to Rs. 150 according to the value of the contribution.

All articles dealing with military subjects are submitted to the authorities before publication, for security reasons. Contributions may, if the author desires, appear under a pseudonym; in such cases, the name of the author remains strictly confidential. The right to omit or amend any part of an article is reserved by the Executive Committee.

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Membership of the United Service Institution of India is open to all officers of the Services, and to gazetted officers of the Government of India or of a Provincial Government.

Members receive the quarterly Journal of the Institution post-free to any part of the world. Other facilities include the use of the reading-room of the Institution in Simla, and of the extensive library maintained in its headquarters; books borrowed by officers serving in India are sent to them post-free, members paying the return postage.

During the War the entrance fee has been waived, new members being required to pay only the annual subscription of Rs. 10.

Government institutions, military libraries, officers' training schools, messes and clubs wishing to subscribe to the Journal may do so on payment of Rs. 10 per copy per annum.

Contributions on subjects of military interest are invited, payment being made for articles published in the Journal.

The Journal

of the

United Service Institution of India

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GOLD MEDAL PRIZE ESSAY COMPETITION

The Council has selected the following subject for the Gold Medal Prize Essay Competition for 1946:

"Co-ordination and control in peace and war of the forces of all three services, British and Dominion, in the Indian Ocean and neighbouring territories."

The interdependence of the three Fighting Services, one upon another, was demonstrated time and again during the late war. The success achieved when the three have planned and operated with one object and under a unified direction has been remarkable. This has, however, tended to create a complicated system of command with large staffs.

Bearing in mind the necessity for the three Services to continue to train to operate as one whole, and the danger in peacetime of each retiring into its own watertight compartment, examine the possible ways of evolving from our own war experience a simplified system of command which will ensure the closest inter-service co-ordination for the Commonwealth forces in peace and in war.

A definition of the geographical scope has been left to the essayist to develop.

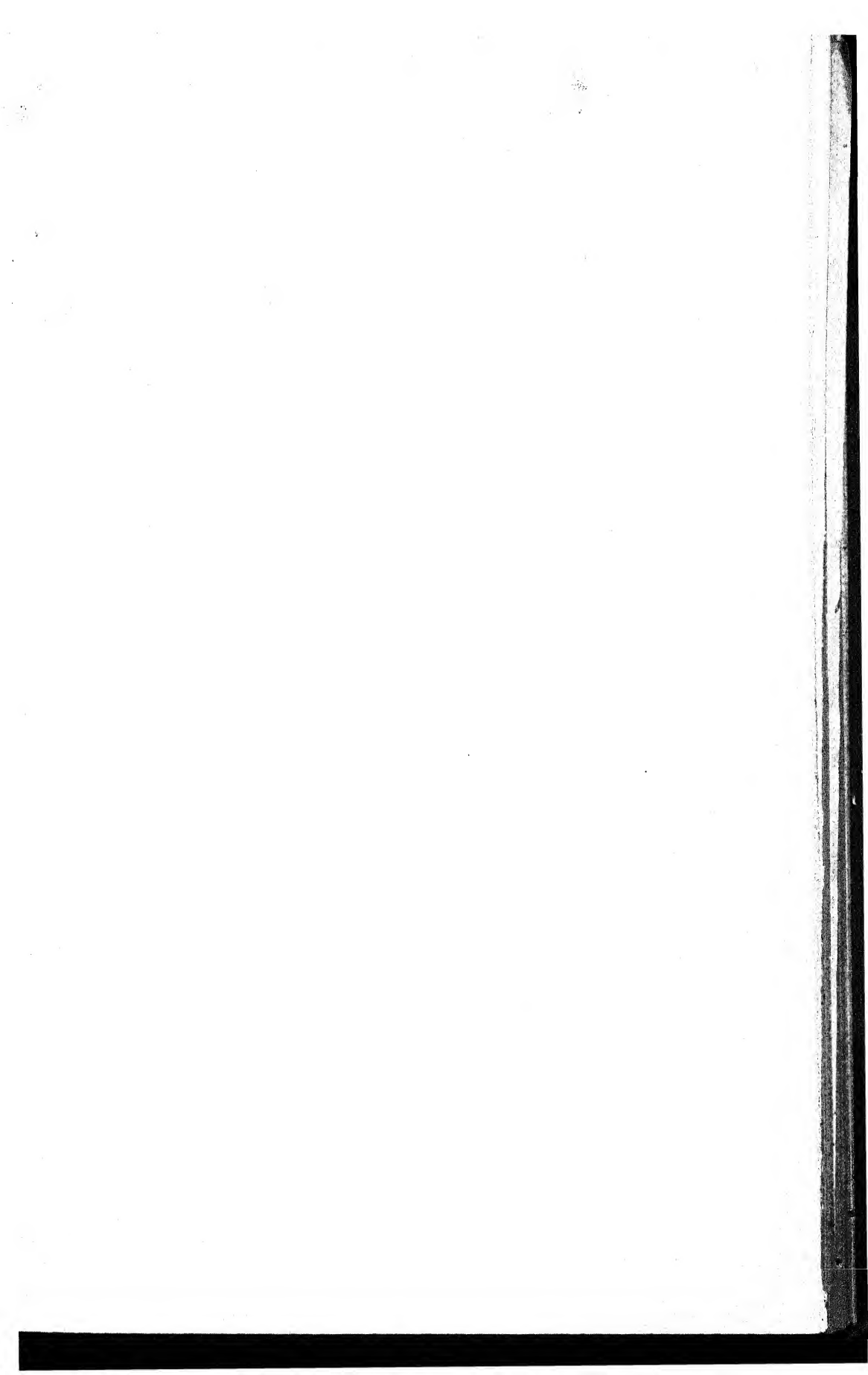
Entries are invited from all commissioned officers of His Majesty's Forces, from gazetted officers of the Civil Administration in India, and from officers of the Indian States Forces.

Essays, which should be typewritten (double spacing) and submitted in triplicate, must be received by the Secretary, United Service Institution of India, Simla, on or before June 30, 1946. In order that the anonymity of each candidate should be preserved, a motto should be written at the top of each entry. A sealed envelope, bearing on the outside the motto, and containing inside the name and address of the author of the essay, must accompany each entry.

Entries should not exceed fifteen pages (approx. 8,000 words) of the size and style of the Journal. Should any authority be quoted in the essay, the title of the work referred to should be given.

Three judges chosen by the Council will adjudicate. They may recommend a money award not exceeding Rs. 500, either in addition to, or in substitution of, the Gold Medal, and will submit their decision to the Council. The name of the successful candidate will be published in the October, 1946 issue of the Journal.

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The Journal

of the

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A Message from H.E. The Commander-in-Chief

We are privileged to publish the following message from His Excellency General Sir Claude Auchinleck, G.C.I.E., G.C.B., C.S.I., D.S.O., O.B.E., A.D.C., Commander-in-Chief in India :

I am honoured and pleased to send this Victory message to the Journal of the United Service Institution of India, particularly as I have been a member of the Institution for very many years.

Of the courage, steadfastness and endurance in this war of the Indian fighting man—sailor, soldier or airman, much has been written. His gallantry has been acknowledged and acclaimed all over the world and his fame will live in the minds of many peoples, as well as in thousands of remote and unknown villages throughout the length and breadth of India. For years to come the mothers, wives and children of those men who served overseas will listen to the oft-told tale of life and war in Africa, in Palestine and Iraq, in Italy and Greece, in France at the beginning, in Burma and Malaya and many other strange lands. We may be sure that the tale will lose nothing in the telling as time goes on, but even so it will remain a great and moving story which will endure.

Proof, if proof be needed, of the valour of India's soldiers is given by the award of thirty-one Victoria Crosses to the Indian Army in this war. One hundred and fifty Crosses in all were given and India stands second to Britain among the nations of the Commonwealth in respect of Crosses awarded between 1939 and 1945.

Gallantry and self-sacrifice on the scale displayed by India's fighting men in these six long years of war have cost us dear. The Indian Armed Forces suffered over 160,000 casualties in this war, of whom 20,000 were killed or died of wounds. To honour and preserve the memory of these many thousands of brave men who gave their lives in the cause of the freedom of the world, it is intended to set up a Military Academy for the training of young men of Indian nationality and domicile to provide the officers of the future for the Royal Indian Navy, the Indian Army and the Royal Indian Air Force.

It is thought that no better memorial can be devised, and it is hoped that a good proportion of the cadets of the Academy will be furnished

by the sons and relatives of the Viceroy's Commissioned Officers, and other ranks of the Indian Army, R.I.N. and R.I.A.F. who have distinguished themselves in this war. Vacancies will be set aside for these boys. The Academy will, it is hoped, be fully worthy of the fighting services of India. It is likely to hold between two and three thousand cadets and to provide a four years course on the lines of the United States Military Academy at West Point. The future officers of all three Services will be brought up and educated together.

The Sudan Government's princely gift of £100,000 to India in recognition of the part played in the defence of the Sudan by the Indian Army in the early years of the war, is to be used to provide special features in the Academy buildings.

I seek the co-operation and help of the people of India and of the Services so as to make this Academy a truly national memorial, and I know that the National War Memorial Committee now sitting at Delhi will welcome any suggestions or advice which any one cares to offer.

Many officers will shortly be leaving India on repatriation. I hope that their service in India and elsewhere will have given them happy memories of comradeship and affection for one of the finest armies in the world. For those who are staying, let them resolve to continue to do their utmost both for the Indian soldiers who are to be demobilised and for those who are continuing to serve.

MATTERS OF MOMENT

"IT IS not the beginning, but the continuing of the same until it be thoroughly finished, which yieldeth the true glory." Francis Drake's words recur to the mind as the hearts of all people rejoice at their deliverance from war, for it was the persistent grim courage of men and women in the war-sodden countries as well as the irresistible valour of sailors, soldiers and airmen that finally yielded the true glory and brought us to victory. The years of darkness are over; their memory will linger until time with us shall be no more, but now we have emerged into the light, let us with solemn resolve recognise two duties which fall upon us all, no matter what our nation, colour or creed. We must be loyal to those who fell, and who, so far as our sight can discern, will never return. And we must dedicate ourselves to the task of vindicating their sacrifice. They loved freedom as we love it; they loved equality and brotherhood; and we who are left must devote ourselves to those high ideals. World War II thus passes into history.

**The
True
Glory**

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The United Nations have become masters of a world devastated, as it has never been before, and stricken in Europe and Asia with disease, physical and mental. In achieving that mastery they have attained unlimited power, for with the discovery of the atomic bomb the world has gone beyond the era of tanks and guns. Its vast destructive power places on states-

**A
Solemn
Responsibility**

men, and, indeed, on us all, a new and solemn responsibility, for the grim fact is that any future war will end civilisation as we know it. A leader writer in *The Times* very truly wrote that this time "Nature offers her alternatives with a choice more than ever plain—the loss more sure, the positive gain more patent. 'I call heaven and earth to record this day against you, that I have set before you life and death, blessing and cursing; therefore choose life, that both thou and thy seed may live'. It is a time for courage, and solemn resolve that must be sustained through the years. Humanity stakes its life upon its ability to prove itself worthy of its material achievement. The intellect, the skill, the organising power have already been made visible. Nothing except is lacking to a well-found craft—except the rudder. And nothing can provide it save vision, purpose, faith—the very qualities that have triumphed over the dangers and disappointments of these six tragic years. A huge opportunity—accompanied by the huge risk which is the condition of all opportunity—opens from this moment before the feet of man." Peace depends upon the common conscience of mankind, and as these United Nations have striven together in battle, so may they apply and practise their talents and achieve a common purpose to preserve concord and good understanding.

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THAT TEAMWORK won the war was abundantly proved. Roosevelt, Churchill, Stalin and Chiang Kai-shek were an invincible quartet in developing the higher strategy; but it was given to the Forces to develop a unanimity of purpose and warm friendship which will live long and which, indeed, may profoundly affect the future of the

**Teamwork
Wins**

world. Seldom has there been such whole-hearted co-operation between nations; seldom have countries with nothing in common but a desire to smash tyranny united with such selflessness and sincerity. All gave without stint. In battle we had the remarkable sight of soldiers of eleven nations fighting side by side in Italy; in France the unified effort of Americans and British was a feature which will endure; and in the Far East our Australian and New Zealand soldiers, sailors and airmen were banded with the Americans in strong alliance. However, as this United Service Institution was founded to represent the United Services of India, we deem it timely to refer in terms of high praise to the work of the 3,000 pre-war regular Indian Army officers, under whose skilful direction this Indian Army rose from 170,000 to 2,500,000 in the short space of five years and became a great fighting force. It is an achievement unequalled in our history, and we feel sure the thousands of Emergency Commissioned officers who

assisted them in the task will wish to be associated in this tribute. Let us also pay tribute to the gallantry of Indian, African and British troops who fought in Burma to defend India. That campaign, led to victory by General Slim, the "Montgomery" of the East, was unique in its skilful strategy, in the speed with which its armies grasped their opportunities, in the grand combination of air, sea and land forces, and in its success in inflicting on Japanese soldiers the biggest land defeat they suffered anywhere. Such was its success that more than 128,000 Japanese were killed, counted and buried in Burma for the loss in our own forces of 20,000 killed and missing; and in one action—General Tucker's victory in the Sittang bend—11,000 Japs were killed or captured for the loss of 73 Allied troops.

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Credit for that magnificent achievement must go to the Commanders who planned with such vision and unerring accuracy; to the soldiers who,

**Well-
Deserved
Tribute**

in the worst battle areas in the world, fought under unparalleled hardships and difficulties; to the engineers who built the roads and bridges; to the Pioneer Corps; and to the host of others who made up that famous Fourteenth Army. To the airmen (the story of how they reinforced the 14th Army is on another page), especial tribute is due, for it is a little known fact that from the spring of 1944 to May, 1945, airmen in S.E.A.C. dropped 609,000 tons of supplies to the Army—or nearly 70,000 tons more than the total of bombs dropped on Germany and Western Europe during the same period. The East Indies fleet, by denying the Indian Ocean to the Japanese and destroying their shore installations, contributed in large measure to the success—as also did those smaller craft of the Royal Navy and the Royal Indian Navy which, in mangrove swamp and creek worked in such close harmony with our advancing forces towards Rangoon. This tribute must not omit reference to the great help forthcoming from our American friends, and especially Generals Stilwell, Sultan, Wedemeyer, Strabmeyer and Wheeler. Admiral Lord Louis Mountbatten may be justly proud of being Supreme Commander of such a team. Finally, we make proud reference to the India Command under our Commander-in-Chief, General Sir Claude Auchinleck. To that Command had been entrusted the responsibility of training and of being the base. The fine work of all who laboured and gave of their best was no small factor in the Burmese victory, and everyone associated with all phases of training centres may all feel that they contributed their share.

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The veil of secrecy having been lifted, we may now reveal the magnitude of the force assembled in Burma for battle before the end came. The

**The
Order
of
Battle**

Armies in the line in Burma when peace was signed were the Fourteenth and the Twelfth. Divided between these two armies were two all-British divisions, seven Indian divisions, two West African and one East African division. One-third of the Indian divisions was British, the remainder Indian.

Altogether 700,000 fighting men, well equipped and trained, were ready. Back in India a new Corps was ready to embark on the invasion of Malaya, "D" day having been fixed for Sunday, September 9. On the high seas was the East Indies Fleet, which included the battleships *Queen Elizabeth*, *Valiant*, *Nelson*, the battle cruiser *Renown*, and the French battleship *Richelieu*; seven aircraft carriers; twelve cruisers; nineteen destroyers; sixteen escort vessels; eleven submarines; and hundreds of beachcraft. One ship, the *White Bear*, was originally an American luxury yacht sold to Britain by the United States Government in 1939. Fitted with a complete printing plant, she charted and printed maps of all the tricky coastal waters of South East Asia. The R.A.F. mustered about 1,200 aircraft, while in addition there were gliders and other aircraft for the airborne side, with all the manpower necessary for an air armada of that calibre. Such was the mighty force that was to fight on. From Britain, India and Africa they had come, heartened by the sure knowledge that they had the Jap beaten.

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A REMARKABLE feature of the late war was the multitude of military spokesmen. By radio, Press and lecture the public has been persuaded, prompted and provoked by men who, with a sincerity beyond question, have kept the world informed, as far as they were able, on problems of strategy and supply. At times they filled a very important role, especially when the war was against us and everything looked black. It must, however, be admitted that many had little military background,

Military Spokesmen and few could speak with deep-seated knowledge of matters military. We feel, not, we hope, without justification, that the Journal of this Institution, providing as it does a medium for the more serious student of war and for the wartime soldier to express his views, has not failed in its object, for many of our contributors have clearly devoted much time and thought to the preparation and subject-matter of their articles. Many suggestions recorded in past issues have been adopted; many ideas publicised in our pages have proved of value.

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Fortunately the critic, too, has been able to fasten attention thereby on shortcomings, for a true critic is one who is well skilled in estimating the quality of a work, and is not, as some might suggest, of a carping nature. Looking through past issues of this **And Critics** Journal we see many of the former, and events have proved that a closer study of their writings might on occasions have been highly beneficial. They have been men who have exercised their intellect in the study of military science. Such contributors are seldom of the "I told you so" category, but we propose to take the unusual course of drawing attention to one. We refer to "Auspex". We do so because in an article he compiled in December, 1944 and which we published a little later, he made this prophecy: "I firmly believe that soon after 20 years from now, with the discovery of a new propellant and

a terrible and destructive new explosive, probably as a result of research into atomic energy, the whole aspect of war will change with the whole aspect of daily life." He was, we believe, the only military writer to have forecast so accurately the weapon which astonished the world and appalled the Japs in August. His article received, we understand, close study by responsible authorities; it also demanded close study by those who, ere long, will be returning to civil life. In this issue is another article by the same writer. We are not prepared to say it contains another prophecy, but it does "give one furiously to think."

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ELSEWHERE in this issue appears an article on Man Management—a subject of first importance to soldiers at all times, but especially so now. The contributor has spent forty years in training animals. In selecting his officers for the animal training unit he has commanded in this war

Man Management

he chose those who had had animal training experience in civil life, and he has taken it as significant that in his unit of 1,000 men, crime was almost non-existent. His experience in his M. T. Training unit has not been so happy, and he has drawn a moral on that fact, for one vital factor in the training of animals is the deep sympathetic understanding between master and animal, and he has set out to show how an understanding between master and man can be developed with similar results. His contribution deals chiefly with the early days of a recruit's training, but many of his comments can be of value in their relation to more seasoned soldiers. They have, indeed, special significance at the present time, when hundreds of thousands of men are anxiously awaiting the signal to be demobilised. "Know your men" is a slogan to be respected more than ever. The sympathetic officer will introduce a more recreative spirit in his training programme, and by giving his men more opportunities for brainwork will make them more contented. Many sepoys will be wanted for the post-war forces, and they, as well as those who are about to leave the Army, will need to be physically and mentally fit and armed with knowledge—for those about to be demobilised will have to face a competitive world. To ensure that they will possess these qualities demands especial thought on the part of the officer of how best to handle men—and it is an asset, by the way, which can be of value in all walks of life.

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THERE IS evidence of widespread thought that the Indian soldier on demobilisation may receive a grant of land as a partial reward for his services in the Forces. It is due to a variety of causes, one being that at the end of World War I certain land grants were made, and another that last year the Punjab Government announced that they were reserving several thousands of acres of land in their Thal project for distribution to Punjabis in the three fighting services. The unfortunate fact is that the amount of land available in India and suitable for agricultural purposes

Land Grants

is very limited, and even those who have won decorations for gallantry in the field are by no means certain of being given a land grant. These are hard facts, and officers will be doing their men a service by making them widely known. It is, of course, the responsibility of each Provincial Government to make land available, for the Government of India has no land to dispose of and it cannot in any case force Provinces to sell theirs. It is not unlikely, moreover, that the bulk of land which can be made available for ex-Servicemen may be utilised for the setting up of colonies, but much time and work would be required before such land would be ready for colonisation.

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AIR TROOPING TO ENGLAND

By THE EDITOR

“WELCOME Home, Gentlemen!” A young R. A. F. officer had opened the door of the Dakota as we touched down on an airstrip in Somerset. He probably repeated his welcome more than once daily, but his sincerity and friendly voice were typical of the whole spirit of Transport Command and its staff

Our trip began at Poona—where, by the way, a well-planned Air Transit Camp was in the making. The plans provide for a cinema, ample dining halls, reading and rest room; and for future air troopers it should be a happy and comfortable centre. The day of our departure began at 5-30 a.m., and an hour later our party of twenty-two attended the final weighing parade. They are, very rightly, fussy about weight. You are weighed when you first arrive—50 lbs. luggage, and then your own weight, plus overcoat or raincoat and haversack containing your shaving utensils, etc. The record is held by an officer air trooper who (without his heavy baggage) but including coat and haversack turned the scale at 357 lbs.! The average is about 180 lbs. He was accepted, but I gathered that any other customer of similar weight will be looked on with disfavour. Weights are entered on a manifest giving your total plane load, and a check weighing is carried out just before you leave for the aerodrome.

Rations, and indeed, everything else on air trooping, are free. The only expenses to be met on the trip are drinks and cigarettes—and at Elmas in Sardinia a packet of twenty cigarettes costs only 9d. (In England they cost 2s. 4d.; in Naafi, 1s. 6d.)

Weighing over, we boarded a lorry for the aerodrome. An R. A. F. officer gave us our first briefing. “You will fly with the same crew and in the same aircraft to the U. K., and all being well should arrive there in four days. From here you fly to Karachi, and spend the night there. Next morning you leave for Bahrein Island in the Persian Gulf, and then to Habbaniya in Iraq. A night's stop and you go to Lydda in Palestine and on to El Adem, near Tobruk, for the next night. Then will follow a flight across Benghazi and over the Mediterranean to lunch at Malta, whence you fly to an airfield near Marseilles. Next morning you go straight to Somerset.

“Your plane is a Dakota, a two-engined machine with a range much greater than any stage on the route, and with a cruising speed of about 140 m.p.h. You may not smoke in the machine or within 50 ft. of it when you get out. Only one person should move about inside while you are flying. Before taking off everyone must adjust his safety belt, and loosen it after the plane has been in the air a few minutes; similarly, in landing your belt must be adjusted. Under each seat is a little bag containing a Penguin novel in case you tire of looking at the face of the man opposite; also a paper bag in case of air sickness—though cases of air sickness on air trooping are as low as one person per twenty planes. That is all for the time being. Will you now take your seats?”

Our luggage had been loaded, and we were given our places in the plane. First arrival of the crew was F/O Cliff Thorley, the radio engineer. “Morning, everybody! While we're waiting let me show you how to adjust your Mae Wests, to be worn when we fly over water—just in case. Actually, if we do ditch you'll find she makes a soft bump and then a bounce of about 50 ft. But

remember—it's on the second bump that we get out!" He explained that there were four dinghies in the corner, that the navigator would be in charge—but anyway he didn't anticipate any unfortunate incident happening. (Later, I learnt there are air rescue parties on both sides of the Mediterranean, complete with lifeboats which descend attached to parachutes).

Soon came the pilot, F/O George Green; the navigator, F/O Don Blackley, who hailed from Canada (a great number of Transport Command crews are Canadians—and very popular, too); and F/Sgt. A. Boyes, the assistant pilot. After slowly taxi-ing over the tarmac Cliff Thorley came out to see that all safety belts were correctly adjusted, and advised anyone feeling unwell to change places with someone sitting over the wing. Engines were tested in turn, and we were ready.

Suddenly the propellers broke into a mighty roar; the ground raced by until we were tearing along at 95 m.p.h. One could feel the tail rise; and then, like a mighty bird, we were flying. A quarter of an hour later one of the crew came out and asked if everyone was well. One young private wasn't feeling too bright; he was promptly given a couple of tablets and some water to wash them down; another was given some cotton wool for his ears. A little later the radio operator appeared with the news that we were going up to 14,000 ft. and would need the oxygen masks; he showed us how to adjust them. The oxygen was turned on (it is regulated automatically) and off he went.

And then, too late, I remembered my fountain pen, for looking at my tunic pocket I saw the ink had already started to come out. It is useful to bear in mind—always keep your fountain pen dry, for if you do climb above 12,000 ft. the air pressure sends the ink scuttling out. We began to get very chilly; one man put his greatcoat on; another a jersey. And then some leather boots with woolly linings and zip fasteners were distributed, and were badly needed.

Monsoon weather is not the best time for flying. We had waited for some days in Poona, searching the skies for a Dak, and we said some harsh things. But, once started, we soon found the reason of our wait, for the fact that we got through safely to Karachi, interrupted by a brief stay at Ahmedabad, was the result of a fine performance by the pilot and crew. How they found Ahmedabad was beyond me, for we had had to dodge around, above and below clouds nearly the whole way.

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I have been writing the above since we left Karachi half an hour ago, and now here we are, 2,000 ft. above a very uninviting and barren coast on our way to the Persian Gulf. Karachi was not at its best, but now we have left the monsoon weather and are flying below a cloudy sky. But not for long, for we've just been told that the pilot is going to climb to 10,000 ft. and get above the clouds, and slowly we can feel we are climbing higher. A few minutes and we are sailing along under a blue sky; down below, in the open patches in the clouds, are the waves breaking on the sandy beach. Otherwise there is nothing to see but the yellow of the barren sandy desert.

And now a little about the aircraft. Inside it is not unlike a tube train—though the canvas seats aren't so comfortable; they stretch along each side of the plane; there is plenty of legroom. (Air troopers should carry a little cushion; at first the seat was soft, but it is now like iron). I see from a stencil on the inside of the roof that this Dakota was made in June, 1944; at other points are indicators showing where stretchers should be placed (these machines

are used as ambulances occasionally). The designers carefully placed the side windows at the back of your neck, so that to look out is a painful business. Each window has a small ventilating hole, which can easily be closed. Up for'ard is the crew's quarters; and in the tail is the lavatory.

Everybody looks very contented. Everybody has convinced everybody else that it is all going well. My next door neighbour (he will forgive me!) was not too happy at first. The bumpy weather yesterday made him wonder if this flying business was all it was made out to be. He had tried to concentrate on reading, but what got on his mind so much was the tip of the wing, for in baddish weather it has the disconcerting habit of flapping up and down as with a bird. He turned to another passenger, who had shown all signs of having spent long hours in the air, and was reassured when told that "everything is going splendidly—no need to worry, old man," only to be a trifle shaken later when he found that his informant was likewise a newcomer to flying.

Our radio "host" has just handed us round a ration tin "Type C," containing boiled sweets, chewing gum, biscuits, oatmeal crunch and a fruit bar. They are distributed on all flights of more than five hours, and are very welcome. Now cups of hot tea are coming round, poured out from a big vacuum container. The navigator has brought out his maps and shown us exactly where we are, and we learn that we're due at Bahrein Island in three hours. We've left the sea and are now over rugged mountainous country. . . .

Time has passed quickly, and a message comes out that we are going down, slowly and almost imperceptibly. Immediately jaws start working overtime with chewing gum, for unless you chew, the pain in the ears, owing to the difference in air pressure, is terrific. Gradually objects on the ground become bigger, and from the window I can see the landing strip of Bahrein Island, with the smoke of oil wells in the distance. We've flown 1,250 miles non-stop . . .

Lunch was ready as soon as we landed. Probably the sudden descent from the cool air above made us feel it was the hottest place on earth. Chatting to some R.A.F. personnel I gathered that Bahrein is not a health resort. Even ice melts immediately it is dropped in water; butter is poured, not spread, on bread. Their two chief amusements are swimming and a nightly cinema show. Their chief desire to see their group number come along. I was told it was a good place at which to buy pearls.

George Green, the pilot, must have sympathised with us, for after an hour we were off again. Inside the machine on the aerodrome was like an oven. Now we're up at 8,000 ft., it is delightfully cool, and the 'plane is just skimming along. Below is the Persian Gulf, on both sides of which are miles and miles of barren desert, interspersed with dried-up stream beds. Someone has suggested bridge, so we improvise a table and begin playing, making our calls by pre-arranged signals. (Daks are not sound-proof). . . .

I have just been up to the cockpit. Never have I seen so many instruments, switches, dials, levers and gadgets crammed into so small a space. It reminded one of the keyboard of a cinema organ. But it was thrilling to see the vast empty space ahead, the emptiness of the desert, to picture the comparative smallness of the machine, and to realise we were cruising along at 150 m.p.h. I seized the opportunity of solving a problem which has always worried me—what would happen if, in the stress of watching this, that and the other instruments, both pilots forgot to lower the wheels when they were landing. But even that has been foreseen, for when landing the engines are throttled back, and if when that happens the landing wheels are not down, an electric horn suddenly screeches out beside the pilot.

They have a facetious story in the R.A.F. of one man who did forget his landing wheels. He was coming in when the Control tower saw his wheels were not lowered. They radio'd immediately—but it had no effect. The pilot came in and made a belly landing. When the authorities arrived and told him angrily that they had radio'd from the control tower warning him that his wheels weren't down the pilot replied that he had tried to listen to the message "but I couldn't hear a dam thing for the noise this blasted horn was making". . . .

Next morning.—We reached Habbaniya safely last evening, and soon after sat down to the evening meal. "Habb" is the R. A. F. "show-place"—and they have good reason to be proud of it. Built in the heart of the desert somewhere about 1936 or 1937 it cost, I understand, about £14,000,000. Perfectly planned, it has a first-class cinema and an open air one; two churches; two clubs; two swimming pools (in one of which water is sprayed on to the pool), a racecourse, a first-class hospital, a club which must be the envy of any other R.A.F. or military station, and very comfortable, well-built billets, all fitted with h and c. At night coloured lights hang on the trees outside all messes and clubs. Trees and lawns abound. Even sparrows were imported. Its shops are better stocked than those in India.

To serve behind the bar in the Mess you need to be a mathematician, for they deal in no fewer than ten currencies. And if my recollection is correct, a *chota peg* costs 5d.! All roads in Habbaniya are named after famous R. A. F. stations in England. Here are some: Hendon, Halton, Milton, Hawkinge, Farnham, Tangmere, Martlesham, Avon, Dover, Kenley, Kingsway, Digby, Calshot, Uxbridge, Farnboro, Cranwell, Grantham, Eastchurch and London Roads. F/O D. S. Randall very courteously gave me a lightning tour of the station, and told me the whole place was irrigated from the Euphrates. Our party had been rather larger than they usually "put up for the night," but the genial club hon. secretary went to great trouble to discover empty beds, and soon everybody was accommodated.

That was all last night—and this morning we were up bright and early for the journey to Lydda. We were told to expect a bumpy journey—and as our heavy kit was roped in in the front of our compartment, we anticipated some bad weather. But we have no need to worry, as, being in the early morning, the journey over the Jordan Valley and into Palestine is quite smooth—but quite uninteresting, and we have played bridge the whole way. The only item of interest I can see is the famous oil pipe line. As we near Lydda we can see dozens of fruit farms, with their neat rows of trees; Jaffa in the distance; and now we are coming down to a landing ground which looks as though it has dozens and dozens of craft around. . . .

Lydda, midway between Karachi and U.K., has become the Clapham Junction of the air. Quickly we were whizzed away to an R. A. F. Mess three miles out for lunch. The artistic (and amusing) Mickey Mouse drawings on the walls in this Mess are good; one showed an aeroplane loaded like a pantechicon, with an agonised pilot in front; another revealed an agitated pilot looking out to see if his landing wheels were down, while his co-pilot and passenger were doing the same; ahead was a baby aeroplane with a perky Mickey Mouse as pilot showing the machine behind how to land without wheels. His legs were dangling through the machine ready to run along the ground!

Air troopers can here buy a small basket of fruit to take home, but it has to be small or there will be trouble about weight. I took half a dozen bananas and some nuts, but grape-fruit, oranges, melons and, indeed most fruits are obtainable when in season. The fruit shop is just near the entrance to the camp,

and easily found. What isn't so easy is the currency problem. Prices are in Palestinian currency, and you rely on the shopkeeper's honesty to translate it in terms of real money. The result was that half a dozen bananas cost something like two shillings, but a pound of shelled nuts a few pennies.

From Lydda, if the stay is long enough, one can enjoy two interesting trips, for usually outward parties stay there for 48 hours. A bus runs at 2-30 p.m. from the camp to Telaviv and those who haven't had their fill of excitement in the air may enjoy travelling in it. I was able to make the trip on my return journey to India, and for sheer thrills it was cheap at any price. Had the bus had wings it would certainly have taken off. As it was, beyond nearly killing half a dozen laggards, missing lorries by inches, and taking corners almost on two wheels, it was an uneventful drive, and it was with a sigh of relief that I emerged at the end of the journey. (Incidentally, it is curious how the rule of the road changes; at Habbaniya you drive on the left; at Lydda on the right; at El Adem on the right; at Malta on the left; in France on the right; and back Home again on the left).

Telaviv, created by the Jews during the past twenty-five years, is interesting, with a fine sandy beach and plenty of bathing; all shop signs and newspapers are in Hebrew; the shops are well-stocked, but prices fantastically high. Jerusalem, the second of these trips, is just over 30 miles from Lydda, and easily reached by an officially-run bus. Planes due to leave during every day are posted on a blackboard at the camp entrance; if your plane isn't posted at 9 a.m. you may cross the road, purchase a ticket for Jerusalem and spend the day there. One of our party managed to hitch-hike and spent four hours in the city.

Our stay in Lydda on the homeward trip, however, lasted only two hours, and I turn again to my notes. It is now 2-40 p.m., and ten minutes ago we took off. Below we see the rich blue of an amazingly calm Mediterranean for the first time, looking down on it from the cool air at 10,000 ft. The waves breaking on the sandy beach; the empty desert, stretching as far as the eye can see; a deep blue and cloudless sky—all combined to give one a sleepy, peaceful feeling. I was just dozing off when the radio operator came out. "Let's have a small sweepstake", he said. "I suggest that you have one on the average age of the crew." At sixpence a ticket it seemed easy money—but only one guessed correctly. The answer was 29. He suggested another—this time to guess the time we would reach El Adem; he has given us the distance we covered yesterday from Karachi to Habbaniya—some 1,700 miles; and we have to guess the time the plane will touch down at El Haem.

Now we are over the Suez Canal, and, looking down, can see a couple of ships going slowly through the narrow waters. An argument is going on as to when the bridge at Kantara was built—when the operator rushes in to tell us he has just picked up the results of the General Election. He has the figures and we speculate on the excitement it must be creating at Home. We are now over the old "end of the beginning" battlefields of the Western Desert; shell holes are easily discernible; as also is the small, straight railway line to Mersa Matruh. And there is Mersa Matruh, with its familiar blue lagoon, just as peaceful as it was when I landed there from the air in 1929. Then it was a small holiday resort. On we go over desert and sea—and now I can see below the finely laid out airport of El Adem. And the navigator has come out to see that all our safety belts are fastened. . . .

El Adem is literally as flat as a pancake, though, if Transport Command will forgive my saying so, the landing strip isn't so hot. But as soon as we

stopped, one of the long distance coaches we used to see on English main roads drove up, and we seated ourselves in well-upholstered seats for the ride to the restaurant. After a good meal the coach took us to our quarters. We were all allotted our rooms—a comfortable bed, nice white sheets, clean, tidy rooms and walls—in fact, everything in apple pie order. They do the air trooper well in El Adem.

Afterwards we wandered round the tank and gun cemetery outside the camp wires; burnt-out tanks, rusty guns, wrecked carriers, and the relics of other war equipment—all a glorious salvage dump. Everyone was thoroughly interested—until one member rushed along and said he'd been warned that we were there at our own risk, as they weren't sure all the mines had been cleared. Everybody disappeared as gracefully as they could.

The sun had gone down in a blaze of glory such as one always sees in the desert, and very soon all was peaceful. In the centre of the airport a red beacon glowed; a searchlight swung round from the control tower; and, from the side, the lights of the flare path gave the appearance of being a row of houses. Back into the officer's mess one joined the party; members of the crew told us of their experiences; Reg Foster, of *Seac*, who was with us, turned the talk to newspapers; and after a friendly nightcap we turned in and soon sank into a deep sleep. Flying can be tiring—even to the passenger.

Third day.—An early start, and we were up and now are again flying above the desert. We climb above the clouds and glide along under a blue sky, with the Mediterranean sparkling in the early morning sun in the distance. We shall be over Benghazi soon. It was rather thrilling to see it from the air, though we were too high to be able to detect any sunken ships in the harbour. And now it is time to don our Mae Wests in earnest. They are quite comfortable, and, flying at 10,000 ft., give one a needed feeling of warmth. Below the water looks very, very calm. We can see one ship—and however calm the sea may be, passengers on that boat aren't having the calm journey we are having up here. Malta is our next stop—and we pull the navigator's leg as to whether he'll be able to guide the pilot to such a small island in such a big expanse of water.

Later.—We hit Malta safely and general congratulations were showered on the navigator! To him, like Mr. Drage's advertisements of long ago, "it is all so simple." From the air Malta looked badly battered; we flew in over Valetta harbour and made a good landing—at which, if he will forgive me saying so publicly, our pilot was expert; at least, he seemed so to me, for on every occasion one hardly felt the machine touch the ground. The finely-built new buildings of Transport Command were in striking contrast to the wrecked towns round about. The usual motor-bus was waiting, and after our ankles had been sprayed with a disinfectant powder as a precaution against plague, we drove to the Mess. There we had the luxury of a general brush up, haircut—and, best of all, our shoes cleaned. (Most of us had left India with one pair of shoes, bearing in mind our 50 lbs. limit; those shoes had revelled in the black cotton soil mud of Deolali, in the more classy mud of Poona, and in the sandy mud of Karachi, and were by now well seasoned).

Let me warn the air trooper that when he enters the officer's mess at Malta he should have his purse ready, for there he can buy the things people at Home are longing for. Lovely Maltese lace, bottles of scent, lingerie, etc., all laid out attractively to tempt the eye of the traveller who may have forgotten to bring *all* his presents home. Prices were moderate—and the Maltese lace well worth buying.

We stayed two hours, and are now making for Istres, not far from Marseilles—but too far to permit of a visit. We've been told we are approaching Sardinia, and soon can see the rugged mountains of this huge island in the distance. I cannot understand the oblong square patches we are passing over; and we have a little argument as to whether they are salt pans or not. A little later, and we are over Corsica—but the peaceful atmosphere of the afternoon is now interrupted by some bad bumps. But they lasted only a little while, and we've now settled down to bridge again.

The coast of France is visible; first Toulon, and now Marseilles. Flying as we are about three miles out at sea, the old French seaport is a grand sight in the rays of the setting sun. But it lacks the busy appearance one always associates with Marseilles, and beyond one small boat steaming into the harbour it looks completely deserted. We are now nearing Istres and are flying inland towards this former training station of the French Air Force . . .

Istres airport was badly knocked about by the Huns before they left; apart from destroying the airport buildings they littered the place with mines, and it was not without amusement that we learned that the very men who had laid the mines were now picking them up. At least they knew where the mines were—or shall we say we hope they did. One feature on all these landing grounds is the little Jeep which, with flag flying, dashes out immediately a 'plane lands; scorchs over to the landing strip, and acts as a guide to the pilot as he taxis to his appointed position. Sometimes the notice on the tailboard is "Please follow me;" others, just "Follow Me." Their drivers live a grand life, and when they get back to Brooklands and drive moderately slowly, life for them will be positively dull.

We were driven out to quite comfortable quarters for the night. They were the married quarters of the French Air Force before the war; the Germans later occupied them; then the Americans came along and took them over; now they are used by air troopers. Maybe in the not too distant future French married officers will be able to come into their own again. The town was typically French; shops were empty of produce; but the people looked healthy and certainly happy.

Now we are on our last lap—1,052 miles to the airport in Somerset. It isn't such a clear sky this morning, but we've been told that the pilot intends to get over the clouds. We have all changed into our serge dress, and everyone begins to look tidy once more . . . We've climbed and are over the clouds, and from the cockpit we learn that it is perfect weather all the way to England.

Up here at 10,000 ft. is a remarkable scene. About 500 ft. below us as far as we can see is a vast sea of cloud; above is a clear blue sky; we are flying on the edge of this cloudland, and below is dark and menacing, though the shafts of sunlight which occasionally pierce the cloud enable us to see dimly the patchwork of French farms. Gradually the scene is changing; and now, half an hour after the above was written, we are flying past upright masses of cloud formed in the most fantastic shapes.

The navigator has come along with his maps again—this time to show us our position, and to tell us that soon we shall be passing Cherbourg and that we shall then begin our descent. Our confidence now is such that we just don't trouble to put our Mae Wests on. What was the Channel, anyway? We began coming down over Cherbourg, and fifteen minutes later were approaching the English coast at 2,000 ft.

How welcome is this first sight of the Dorset coast ! There is Portland Bill jutting out into the sea ; there is the narrow causeway linking it to the mainland ; and there is familiar Weymouth with crowds of holiday makers on the beach. Below are the tidy farms, the long rolling downs, and in ten minutes we see our landing ground. A long sweep round—and we land. And then—“ Welcome Home, Gentlemen ! ”

Cups of hot tea awaited us in a hut nearby ; thence we were passed by the medical officer ; our identification cards checked ; and on to the Customs. (They are, shall we say, “ lenient ”. Not that one can smuggle much in with 50 lbs. of kit, but 200 cigarettes, a little tobacco, a pound of tea and a few presents are generally allowed. Best thing is to list what you think is dutiable and read it out. Obviously it is the sensible thing to declare everything doubtful, apart from it being morally right). A coach was ready to take us to the Mess—and, such is the efficiency of the telephone system, within five minutes some of us were talking to our wives and relations in London, in Brixham, in Bournemouth. It is worth mentioning that in making a trunk call at Home you may ask that the charge be debited to the person to whom the call is made.

Lunch over (even mepacrine tablets were on the tables for those needing them) and we were waiting for the coach to take us to the station. Through leafy Somerset lanes ; past orchards loaded with apples ; past dainty little thatched cottages, and into the market town. The sun was shining ; it was Saturday afternoon and the streets were crowded ; on the station platform (how clean it seemed !) were Girl Guides and Boy Scouts ready for the week-end camp ; and how amazing to see express after express roar through at five-minute intervals.

We seated ourselves in the reserved coach for London. Fat and sleek cattle and lush-green crops flashed by. The three-hour journey was soon over and Paddington appeared—packed with people coming home from holidays and with others going away. Our last and final lorry took us to Regents Park, arriving just as crowds were dispersing from cricket at nearby Lords. The R. A. F. officer checked in his “ twenty-two bodies,” and we were off to the Central Hotel at Marylebone, there to be received back into the Army. Everyone was given a book containing 150 clothing coupons ; a detailed form was filled up ; and those who lived in London were given a “ sleeping out pass ; ” and we were at long last Home. Two days later a visit to the India Office produced food coupons, petrol permit, and a NAAFI ticket in a few minutes ; everyone to whom I spoke commented on the excellent reception arrangements there.

* * * * *

London hasn't really changed much. There are the ugly gaps to remind the visitor of the terrific bombing she suffered and of the damage by flying bomb and rocket. But the streets are crammed ; shops seem well-stocked—but you must have the requisite coupons to buy. Along Bayswater Road I was secretly glad to see what is reputed to be the smallest house in London—a little dolls' house affair between two tall mansions—was still standing. Buses were plentiful ; taxis scarce. On one bombed-out site in Oxford Street is a big official aeroplane exhibition ; opposite is a shop which invites you inside to inspect “ the famous V2 Rocket Bomb ” for sixpence. Farther along is the very fine exhibition showing the exploits of the Army in Burma. One corner of Oxford Circus had evidently been hit, though the walls were repaired ; looking up towards the B. B. C. the vista seemed very different without the familiar spire of All Souls Church in Langham Place ; and Queen's Hall and St. George's Hall, home of Maskelyne and Devant in the old days, are no more.

Regent Street was as it always appeared ; Bond Street, on the other hand, shows signs of much damage. Piccadilly Circus—well, it is just the same busy centre. The Shaftesbury Theatre in Shaftesbury Avenue, with the L. C. C. Fire Station nearby, has gone, and grass and weeds grow over the sloping pit stalls and in the stage pit of the theatre. Charing Cross Road ? Its bookshops appeared to have as many books as ever. In Tottenham Court Road Whitefield's Tabernacle has gone, and several of the furniture shops have suffered ; the police station near Goodge Street presents a weird appearance with a huge brick wall built around it.

Leicester Square seems to be more of a cinema centre than ever ; the black marble walls of the Odeon stand untouched, though the building nearby, on the walls of which used to appear those fascinating moving scenes in electric light signs, has gone ; over on the other side Thurston's is no more ; the Empire cinema is untouched, and dotted here and there are several "news" cinemas. St. Martin's in the Field was damaged but the National Gallery appeared to be unscathed, though the famous furniture building next door was almost wiped out. Trafalgar Square, with its myriads of pigeons (and the standard yard measure set in the far wall) remain the same, as also does Whitehall. The Strand, too, looked but little damaged, except for the area next to the Tivoli, where the Adelphi arches were hit. A strong point built on the lawn in Parliament Square in 1940, with its loopholes facing Whitehall, was being demolished. It was unique in that it was an exact replica of a W.H. Smith and Sons bookstall, complete with placards.

Theatres were flourishing. All shows begin at 6-30 p.m., and it is essential to book well ahead. I tried to book some seats at the Hippodrome to see "Perchance to Dream," but was told there were no seats available until November. (It was then August). Several shows have been running for two and three years. By 10 p.m. or just after the streets resemble a country town ; and at that time the only transport to the suburbs is the odd taxi or the tube.

Here are some other random thoughts that struck one. Thousands of men now wear no hats ; ladies hats, on the other hand, seemed more wonderful than ever ! Evening papers are invariably unobtainable after 5-45 p.m., even at Tube stations. Small advertisements in national newspapers are severely rationed ; I wanted to insert one in one of the best-known dailies, but was told that it would appear ten weeks hence, while if I wanted it in the Personal column it would go in within seven weeks. Though it is usual to queue for lunch, some first-class lunches are obtainable at quiet places off the beaten track without waiting—and good lunches, too ; at places like the Hungarian Restaurant one has to reserve a place two or three days ahead. The London parks looked strange without their finely-wrought iron railings, all of which were apparently removed some time ago—as were iron chain and other railings in front of houses throughout Greater London.

Somehow the old smoky atmosphere of London has gone. Going through Richmond Park I could almost distinguish parts of Hampstead Heath with the naked eye. One remarkable thing which struck me in the suburbs was the number of houses that had been completely demolished—though the Anderson shelters in the gardens were undamaged.

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Holidays always fly by. This one was no exception, and the time quickly came when the return flight had to be made. The authorities are much concerned with your health ; the Army M. O. has to satisfy himself ; possibly

the R. A. F. are a little doubtful about his assurance, and their M. O. gives you a more thorough examination; and at the airport you show your vaccination and inoculation certificates yet a third time! It is perhaps wise, because the officer behind me at the airport had succeeded in getting through the other two without his certificate, and as a result had to present himself at 10 p.m. to be vaccinated.

The R. A. F. send you away with a smile, for some of the notices on the walls of the Air Trooping Office in Regents' Park read:

"You want the best seats; we have 'em."

"Just part of the Air Trooping Austin Reed-Service."

"For men may come and men may go, but we go on for ever."

"You're here to-day and gone to-morrow—DV."

"Never have so many given so little trouble to us two as you do."

And, lastly, a mysterious Air Trooping heraldic design with the words:

Bya Erop Láne Toín Dia.

The solution, of course, is quite simple.

Leaving Somerset at 9 a.m. the following morning, our first landing was seven hours later at Elmas, Sardinia—a delightful spot. On the walls of the mess is a map of the station, with all the names of familiar London streets set out. Onwards over the starlit Mediterranean, over Malta with its gleaming lights, and on to El Adem, where at 1 a.m. there was a meal waiting; a two-hour break and on to Lydda for breakfast. Thirty-six hours later we left for Habbaniya, and at 10 p.m. made another night take-off.

Onwards through the night to a landing at Bahrein, which at 2 a.m. seemed as hot as it was during the day; all round one could see the flames rising from oil wells in the vicinity. An hour's wait, and we took off for Karachi, but interrupted the journey by a short stay at Jiwani, just inside the borders of India, finally touching down at Karachi early in the afternoon.

So ended an experience one will not quickly forget, for even in India one does not travel over 12,000 miles to spend 28 days' leave. Bouquets are seldom handed round to those who first thought of "Slick" leave but were it run by a civilian business house its initiative and enterprise would be applauded. And, taking it by and large, the same commendable thought may be applied to those who organise "Slick" for the Forces. It is—or was—not perfect, but such a scheme must have its teething troubles, which goodwill on the part of all will help to minimise. The R. A. F. Transport Command deserve a warm tribute for the organisation they have built up. And the pilots, crews and ground staffs are earning the thanks of thousands of men for the grand job of work they are doing.

AN AIRMAN VIEWS THE WORLD*

BY MAJOR-GENERAL F. S. TUKER, C.B., D.S.O., O.B.E.

("Auspex" and "John Hellard")

IT seems that the tendency in industry to get greater strength and durability from lighter metals, to substitute hitherto imported raw materials by synthetic materials and so to produce the finished article on the spot, is making for commercial transport loads of far greater value for weight than has hitherto been the case.† This, joined with the realisation that the most important raw material of commerce is Time, is likely to give aircraft the chance to compete with other forms of transport. Already in the wild regions of Assam and Burma its economy over road transport, particularly in the vital war commodity of Time, has in those conditions been demonstrated. This is at least significant, for we are only at the beginning of the history of air transport.

Believing as I do that the conquest of the air and the conquest of space by wireless have cut the sequence of history in two and that the graph of development which has till now been one of an ascending curve must be suddenly taken upwards in a vertically straight line before it can level out again, it has seemed necessary to apply this conviction strategically with a vision before one of the world as a whole. Perhaps it is true to say, since the story of the world is so made up and has been so changed by these periodical clashes of war, that the strategical factor must be regarded as predominant in the moulding of the history of the world's future. It is worth considering whether it has not been predominant in the past, sad as it may be to accept such a conclusion.

With these considerations in mind and with some knowledge of political geography as it has descended from Montesquieu, this article introducing an *Airfarer's Geography* has been written.

I hope very much that we will before long learn how far Haushofer's Institute of Geopolitik, in its Teutonic interpretation of Mackinder's theory of domination by the Heartland of his World Island, was responsible for launching Hitler's Germany at Stalin's Russia.

†Since writing these pages I have seen an address given by Air Vice-Marshal A. C. Collier, C.B., C.B.E., Deputy Commander-in-Chief of Air Transport Command, at the Royal United Service Institution, Whitehall, in December 1944.

In support of what I have written here I quote four extracts from his address.

"Other advantages of air transport are related to its speed of movement. By saving time in movement it reduces vulnerability and ties up fewer highly-trained personnel and less specialist equipment in transit."

"It is inevitable that at this early stage in the development of air transport the striking advantages which I have enumerated should be partly off-set by certain limitations. Pessimists regard these limitations as ones which will always apply to it; enthusiasts, among whom I include myself, are confident that future research and development will reduce or banish existing disadvantages."

*This paper was written in December, 1944.

"THE AIRFARERS' GEOGRAPHY—AN INTRODUCTION"

THE geography that you and I were taught and in the terms of which we speak is a seafarers' geography. Even when we speak of air power and of air merchant fleets we still speak in terms that the mariners used and handed down to us; and our minds by habit assume towards geography an attitude that is traditional and without realisation of much that lies behind the geographical terms with which we cover our subject. A new attitude, even new terms, are needed if we are to understand what the future holds for us.

The most satisfactory approach to the new geography is for us to imagine ourselves now in a world in which floatation on the sea, on any water in fact, has never yet been achieved; in a world, therefore, in which nobody and nothing can float on water.

And then to imagine ourselves in a world where, while nothing floats on water, yet for 3,000 years craft have floated through the air. At first, primitive craft which hugged the land—"coasted"; with short range and at the will of the winds. Later, highly specialised craft with long range—ocean cruisers; with oil propulsion which drove them whither they wished to go, despite the elements.

Everything moves by land and by air: nothing can move on the surface of the seas. Broad rivers can only be crossed by land vehicles when bridges are dropped from bank to bank by airborne engineers.

There are land armies and air fleets and airborne armies: there are no sea navies, no seaborne armies.

That is the world, the planet, that we are to conceive as we read this paper. Let us call our planet ICARUS. The early Icarian geographers will have spoken of Asia and of Africa but perhaps not of America. To-day, with our enquiring minds, we Icarians encompass the whole world and are urgent to be intimate with other worlds.

"There is another apparent limitation which is more imaginary than real, but which is often allowed to weight the scales against air transport; this is the fact that it is more costly than surface movement in direct manpower employed for each ton lifted. This is, however, often outweighed by the military or *economic value obtained by the rapid movement of the cargo.*"

"In due course, however, in peace as in war, the value of the time saved will become clearly recognized and air movement will be valued on its true merits. The adage 'Time is money' is much more true than most of us realize."

The italics are mine. I agree fully with what he has said. These are inevitable trends against which only the very blind will struggle, as inevitable as the coming of railway trains from the invention of steam and of tanks and aircraft from the petrol engine.—F. S. T. May, 1945.

The need to build light things for air freight : the need to put everything possible into the air owing to the cost due to expenditure of time in land carriage and in the frequent changes that land carriage must make into air transport in order to cross even the narrow seas : the desire of each nation to industrialise itself—these things will have led to the processing of heavy raw materials *in situ* into the finished article before loading it into freighter aircraft. So the air is full of great air cargo ships but the surface of the seas is empty. The seas are deserts. They are even more inhospitable than the sand deserts, for an aircraft that descends on the sand will be rescued : an aircraft that descends on the sea goes, with its crew, passengers and cargo, like lead to the bottom and will never be salvaged. In peace, this inability to float on the sea does not matter so much, for aircraft are very reliable, but in war, to be caught over the sea and shot down is a terrible disaster.

There are two results from this.

The first is that a string of small lands such as Great Britain, the Faroes, Iceland, is an isthmus connecting Europe with North America, for the short strips of sea between them are only bits of desert to an airfarer. The wide seas on the flanks of the isthmus are wide deserts. These small lands are not islands : they are together an isthmus for they possess air harbours and are hospitable. The time in flight between them is only a matter of minutes, at 700 m.p.h., to an airfarer. Indonesia also is an isthmus between Asia and Australia.

The second result is that in war one will seek to preserve one's air routes by passing them over land, even along an isthmus, or by keeping them far away from one's enemy. By passing over the land they get protection from land-based air defence as well as a chance of rescue if shot down.

Little lands that are far out in the sea desert and distant from each other are oases to the airfarers. So the sea islands of the mariner have never appeared to an airfaring world, but other islands have appeared in their place.

I think it was Francis Bacon who said that his seafaring England could take as much or as little of a war as she wished. How was it that he could say this ? What was the particular genius in an insular position that placed England so favourably then, and why is her position to-day in our semi-Icarian world so much less favourable ?

To have the advantages of an insular position, as Bacon saw it, the borders of the land must not be penetrable by land forces. So those borders, in the Icarian world, must be either wide seas or mountains (marshes are too rare to consider). In the seafarer's world this degree of security would have left the island people free to go about their ordinary occasions within the island, undisturbed by the war outside, and to work freely and fully towards the prosecution of the war. In the Icarian world that degree of security is not enough. Without comparative security from the airborne army, which will be launched from above into the interior of the land and not against its borders from outside, the island people cannot prosecute the war without interference. The great advantages of prosecuting a war undisturbed inside the homeland are that the war effort reaches its highest by stages giving the greatest efficiency, and that the undisturbed people feel the strain of war less than the disturbed, and so can last much longer and after the war recover more quickly spiritually and materially.

The first quality, then, is a sufficient measure of security from disturbance. For the Icarian island this means a sufficient degree of security from the land

army launched against its mountains or wide sea borders, and against airborne attack from above on to the face of the island.

A country of great industrial strength, and only such a country is worth considering for modern war, will have both a good agriculture and good level spaces for its industries and its internal communications. Such a country presents inside its borders—that is, on its face—no geographical features that will in themselves form an obstacle to airborne attack from above. Thus the obstacle must be a man-made obstacle. So now it is important for us to realise what are the man-made obstacles to airborne attack. They are the anti-air-attack defences. These may be within the island itself or they may be in territory belonging to or friendly to the island and lying outside the island borders.

England, and other powers of her day, were, in Bacon's time, self-sufficient for war. Imports were a luxury of peacetime commerce. In this state England fought her wars and won them and her sea fleets grew apace until she ruled the seas. As the needs of the war machine multiplied so did England's insular position work against her until her seaborne commitments in war were beyond her means to meet them. Her power was built up while she was self-sufficient for war. Secure inside her homeland and with few or no liabilities outside, she built up her power. The impetus of this preparation and her great prestige carried her on in some safety until 1914. From then onwards she has fought her wars under the almost insupportable strain of her open sea routes.

The genius of an island is security in the homeland, and self-sufficiency for war is the first part of that security.

Defence of the homeland against airborne attacks is achieved in a manner similar to that which an army adopts to defend vital areas from enemy incursion. That is to say, provision is made to get warning of attack and if possible to know of the weight and direction of attack. There must be plenty of depth outside the probable enemy objectives; and against airborne attacks which may come from almost any direction, the depth must be all round the objectives. There must be an outpost system: that is, a system of light defence well out in all directions which will take toll of an enemy's leading formations, gain time for the defence to put its plan into effect, blunt the point of the attack, determine its direction and mislead it. Lastly, there must be defence in depth about all these objectives. If all these needs are satisfied then we have a sponge-like defence which will absorb an enemy attack. Thus the second necessity for security of the island is depth all round its vitals. Therefore, the vitals will not be placed near the land border.

Napoleon has said that fortune favours the big battalions. I would say, in our context, that in the planet of Icarus fortune favours the great land spaces and frowns on the small ones.

Finally, there must be the great air fleet which can concentrate and go forth to give battle and to defeat the enemy in the air before he reaches the island's important land areas; if possible, before he crosses the borders. The third necessity for security is the possession of a hard-hitting counter offensive air force.

Depth can to some extent be afforded by a wide ocean area, for an enemy who crosses such a desert by air finds himself at the end of his fighting power when he most needs his strength to fight the island defenders.

But the sea desert area is not a good area for getting warning of coming attack, so that this form of depth for defence may be said to be only of real benefit where it fulfils the purpose, by its great extent, of tiring an enemy attack before it reaches the island's land shores.

Now we can summarise those strategical properties that go to make an Icarian island, the island of land and air warfare.

It must be self-sufficient for war, or as nearly so as is possible to-day and in the foreseeable future.

Its land borders must be mountainous.

Its land space must be of such extent as to allow a great depth outside its vital war-supporting areas, in order to give time to actuate the defence, information on which to act, space to wear out the attack. Oceans of adequate extent may be accepted as giving depth. Narrow seas are no borders to air power. Friendly countries may lend depth to the defence.

It must possess hard-hitting counter offensive air forces.

Take out an atlas and see where such islands are to be found.

Let us examine certain seafarers' island of to-day and see how far they have the properties of Icarian islands. We will only regard those that have or will have a fair-sized population and a reasonable industrial strength, such as the British Isles, Japan, Australia and New Zealand.

None of these is within reasonable distance of being self-supporting for war and all lack oil, for one thing. All are true seafarers' islands as far as their boundaries go, but only one is an airfarers' island in that respect—New Zealand. The British Isles and Japan are parts of Icarian Europe and Asia respectively, for the sea deserts that divide them from their continents are insignificant obstacles. Australia is linked to Asia by a wide Icarian isthmus of important and productive land. It is not insular. New Zealand is divided from any considerable air power by over 1,000 miles of sea desert between her and Australia and by many thousands of miles in all other directions. New Zealand is an Icarian island, and New Zealand alone of all four. Greater air range may yet attach her, in years to come, to Australia as a peninsula of that land mass.

The outer seaboard of Japan marks the edge of a wide peninsula thrown out from the Asiatic mainland, a part of Manchuria and Siberia. Similarly, Australia is an Icarian peninsula of Asia protruding into the Indian Ocean and Pacific Ocean deserts. The British Isles are a part of the Icarian isthmus joining Europe to America by way of Faroe, Iceland, Greenland and Baffin.

There is no need to take the matter further: of the sea-faring islands New Zealand is the only Icarian island, but for war purposes she lacks so much to make her self-sufficient, that, even if she had a large population, she could only be described as one of the lesser island powers.

Can Great Britain by any means once more gain the advantage of an island power? To the west she is secured by the broad sea desert; to the north-west there is the narrow isthmus to Greenland. Greenland, except for small oases, continues the desert area. By remoteness to the north, north-west, west and south-west, Britain has security by virtue of the great sea deserts. To north-east is the mountain barrier of Norway which, neutral, has already failed her in this war. Due east there are the open narrow sea deserts of the North Sea and the Baltic with the flat lands of Denmark, southern Sweden and northern Germany. South of that flat area is the mountain belt—The High Tatra, the

mountain mass encircling the Czech peoples, and the Alps from Vienna westwards to the Pyrenees. These mountains and the mountains of Norway are the natural eastern and southern land boundaries of Britain-in-Europe, the Icarian island.

The gap in the defence lies from about latitude 60° to about latitude 52°—that is, southern Sweden and northern Germany. A friendly allied Poland and Sweden would form the sponge of defence needed to tire out an enemy airborne force before it reached the British vitals. These vitals are well placed naturally. They are in western Germany, Lorraine and north-eastern France, in Belgium and in Britain herself. Whether Germany, for the defence of Britain, must extend her frontiers to the Tatra to cover the Moravian gap or whether the holding of that gap by Poland gives a better strategical guarantee is a matter for detailed consideration.

It is certain, then, that for the restoration of Britain's insular power she must, in the Icarian world, take in Norway, Denmark, Germany, Czech-land, Austria and France. This gives her the depth and the land space that she needs for her security. May this not be the Commonwealth of western Europe as one integral national unit, the Island State of Europe? Would this not also solve the delicate and very difficult problem of re-educating Germany and keeping her from making war?

In great measure, with a population of more than 150 million people and with the added resources of these land spaces, this Commonwealth would be self-supporting. In so far as it needed to bring supplies for war into its western borders, its air supply routes from North America would be perfectly screened by this Icarian island and thus secure as long as the U. S. A. was not hostile, its air supply routes from the east would cross Africa, protected into Africa by the Indian Ocean unit of Empire, with the great air base of India as the central power.

In the Icarian world Great Britain can once more become a great island power but we have to become "continental" in mind to be so.

Applying the same tests we find that Icarian India is insular. With much of her industry concentrating towards Calcutta she needs a protecting land space to the south-east. Burma should supply this space.

Insular India has a great chance of being self-supporting; she has oil* and other varied raw materials. She is virtually a complete unit. She cannot, however, with the broad Australasian isthmus to her south-east afford to ignore the possibility of a hostile air power controlling that isthmus and entering Australia. India should therefore extend her air boundaries to look in on that isthmus, and have airfields in Indo-China and the Philippines, thus leaving only the Pacific oases by which an invader can approach and so, incidentally, procuring for Australasia many of the benefits of insularity. The greater Icarian Indian island extends from the Philippines to the Persian Gulf. Within the British Commonwealth she must extend her power further north-west into Africa in order to keep the Indian Ocean air routes well back from a possible enemy. India is the natural air transit centre of the East.

If India is fit for her destiny, she is one of the coming island powers of the Icarian world.

If our tests are the right tests, then there is little difficulty in naming the other rising island powers. Here, there is not space to examine further. Some of them are certainly land-locked by mountain land borders.

* Burma is a part of Insular India.

It is of interest to note that geographically, Icarian America is not separated from Icarian Russia by the Bering Strait but by the mountains of north-west Canada and Alaska and those of eastern Siberia. There are many other aspects of the airfarer's geography that need the examination which we cannot give to them in this short introduction.

Now we should come down to Earth again. There are to-day still cargo ships on the seas and troops are carried about the seas in transports. The planet Icarus is still just round the corner of the sky. But what difference does this make to our Icarian geography? To-day, in war, wherever ships can be covered by air power, or are remote from enemy air power, they can go; where they cannot be covered they cannot go if they are within range of effective enemy air attack. Thus a greatly superior air power would launch land armies in surface craft from Manchuria and Siberia on to a hostile Japanese coast as Britain launched them on to the Norman beaches, so the narrow seas are to-day almost a continuation of the land for air-cum-sea power. That approaches near to the Icarian theory which ignores the narrow seas as an obstacle to movement.

As most of the trade of the world goes by sea, then most of the trade of the world is forced into certain passages such as the Mediterranean, the Red Sea and the many straits of the world. Air power is directed to the blocking or keeping open of these narrow waters. They orient air power. Thus sea-borne traffic makes for an inelasticity which the Icarian world of air fleets would find irksome. Ports on the edge of the sea dot the world. Some British ports are to-day insecure owing to their small hinterland, and so lack local air defence and depth for defence. Gibraltar, Malta and Hong Kong are examples.

Narrow waters are almost entirely under the control of air power already. The Icarian era has entered them. As air power increases in range so will the ocean spaces enter the same era. For many years yet cargo ships will not be supplanted by air freighters so that air power must be disposed for and applied to the protection of seaborne traffic in both narrow seas and ocean spaces. The less that air power need be so diverted, the better, for it strains our resources in war almost to breaking point.

Therefore, in all future Commonwealth planning and international understandings we must try to arrange our land masses geographically so that they cover these sea routes most economically and are also so placed as to screen with our main air effort, indirectly, the operation of our air routes. In war it is the land masses that are of greatest value, for air power gets its sustenance from them: the ocean spaces, wide sea deserts, with their open sea traffic are becoming a grave weakness. The possession of more ports will not protect sea traffic; only the possession of considerable land masses from which great air forces can operate will protect this traffic. We are entering the Icarian era and must even think of a world to come in which no ships at all will furrow the Seven Seas.

This is only an introduction to the subject; in the airfarer's geography much remains to be examined and much to be said. For example, if there is to be a Western European Commonwealth, then the strategical geography of its dependency, Africa, needs close study.

Postscript

The article mentions that there are other natural "insular" countries in the world besides India. Between the Yenisei River (actually, from a little

East of it) to the Ural* Mountains and perhaps including the rich area about Kuibishev (the old Samara) there lies another region of what should seemingly be great "insular" power. To East and West are mountains, to North the Arctic, to South the mountains that border India and the Hindu Khush and Elburz. The region abounds in minerals and has much oil. Agriculturally, they say it can be greatly developed. If it can be populated and made self-supporting for war, then its insular position is of tremendous strength. There are yet other insular areas in the world.

The currency of Time will, as the years pass, purchase more and more of the commodity of space. So let us regard these Icarian islands as each one not more than a great fortress. The scientist of war now has his problem before him—it is to discover the swiftest means of reducing and capturing any of the fortresses that he may select for his problem.

At the end of the article on the Airfarer's Geography a suggestion is made that it will repay examination, to study the African dependencies of the Western European powers†. For instance, the north-western littoral of Africa is a part of Europe; (Mackinder's theories seem also to indicate this fact). Africa, south of an approximate line from Northern Abyssinia to Senegal, seems as though it should be geographically and strategically one unit but it looks to-day as though many, many years will pass before it is unified economically and racially. I suppose that its unification is in the end inevitable so perhaps there would be no harm in setting to work now to hasten it on slowly. It would be encouraging failure to try to cement together peoples who have not the same way of life, or at any rate a way of life which bears a fairly close resemblance and is at least ethically founded on the same principles.

Lastly, I suggest that reference be made to the article, "India's Strategical Future" in the issue of this *Journal* of April, 1945.

The soldier should now combine in his mind two things from that article :

1. That war now takes place from the interior of one country into the interior of another and not against the borders.
2. That atomic energy, propellants, explosives and later, cosmic energy, are now a normal feature of war.

With these two things a military scientist will study and solve the problem propounded in the Airfarer's Geography. So it is little use for a responsible modern soldier to be anything less than a military scientist.

* There is Uranium in the Urals. † It will also pay to make the same examination of Indonesia.

SOME ARMY NICKNAMES

By "MOUSE."

THE habit of using nicknames appears to be dying out fast. The grotesque name often applied by schoolboys in contempt or sportive familiarity to their comrades to denote some physical peculiarity or mental abnormality is now disappearing and, instead, there is a casual use of Christian names bandied about without affection, esteem or any originality. That is a pity. Lord Roberts, it will be remembered, rejoiced in his affectionate title of "Bobs Bahadur."

As I sit on a boat-deck watching the warm waters of the Red Sea slide past in the wrong direction memory tries to recapture some of the nicknames used in India during my experience. All sorts of vague shadows flit past ready to slay me with a look for an imprudent reference, but at least 99 per cent. of the nicknames I know were bestowed without malice and generally with great regard.

The first shadow is a terrific personage of my subaltern days known through India as Boomer. Boomer Barrett's name is still recollected from Bengal to Baluchistan when the name of any Baluch regiment is raised. He is a character about whom many rare stories still circulate. His beard—the only growth of its kind on any soldier in India—was famous, and led to many pretty controversies when inspected by recently imported General Officers. It is alleged that on one occasion when a Commander-in-Chief demanded its removal Boomer gripped the offending tuft, exhibited his profile and boomed: "You wouldn't like me to look like this?" The Chief agreed instantly.

Nicknames require some classification so we may consider first of all the classical tradition. By a dispensation of Providence it has been decreed that Clarks should be dubbed "Nobby", an odd word in itself, though not all Clarks necessarily achieve "Nobbidom." The "Jimmy" Jameses, "Bill" Williamses, "Jonah" Joneses and "Chalkey" Whites are more frequently met with than the "Hookey" Walkers and "Dolly" Turners. The two latter names originate in obscurity; more obvious is the derivation of the "Lakri" Wood family. The connoisseur will be interested to know that in one case the Lakri symbol descended in the female line to a branch, or limb, popularly known as "The Twiglet".

Diminutives, or corruptions, of the surname are in almost all cases a term of affection. We have instanced Lord Roberts, who had two successors as Commander-in-Chief, Lord Rawlinson and Lord Birdwood. They are generally referred to as "Rawly" and "Birdie" even by people who have never seen them. General Quinan was always called "Q" by his comrades in the 27th Punjabis. The sepoys, who are never disrespectful or familiar, called him "Quinine Sahib", a sobriquet which coloured this officer's attitude throughout his service towards the malarial problem. General Alfieri has only his parents to blame if he is generally known as Alf. (For more disrespectful is the Naval Captain, called Adams, whose own wife called him Fanny.) In the recent emergency I have heard of a Field Marshal who is quite frequently referred to as "Monty." His name, I believe, is Montgomery.

Akin to the Prep. school cruelty of apt nomenclature is the animal derivation, based perhaps on some physiological or habitual resemblance. It is rarely unkind and often apposite. For instance, the theatre of war known as the Muddle East attracts big men. In the last war there was Field Marshal

Lord Allenby, known as "The Bull." In the present war Field Marshal "Jumbo" Wilson fills the same horizons. General Sir Kenneth Wigram, beloved by all who knew him in India, was always called "Kitten" by his contemporaries. In the same Gurkha Regiment, devoted to blood sports, is a Fish Armstrong. General Sir Hastings Ismay is known by his friends as Pug, and a glance at his portrait by Augustus John in this year's Academy may suggest a reason, probably the wrong one. There are several Tigers and a few Bunnies, two or three Mice but, funnily enough, few Snakes or Monkeys. Men do not call each other catty names. Girls' names are also unusual, but when used are attached to tough males, *e.g.* Lottie, Flossie, Henrietta and Pansy.

Incongruity is another normal derivation. The enormous Field Marshal Lord Ironside shares with Brigadier Farwell the manifestly absurd nickname of "Tiny". Surely the Adjutant-General has superior claim to this appellation! The infant food Glaxo seems slightly improper when addressed to such grown-up specimens of manhood as Duncan and Mountain, but is of course less crude than the "Fatties," among whom one has had so many friends. Among these miscellaneous incongruities we might catalogue Gertie, Mouldy, Groppi and Fruity. One hesitates to inquire or indeed comment on the peculiar name enjoyed by a senior officer—"Charpoy," but such hesitation is unnecessary in the case of the distinguished Major-General known both in Gath/Askalon and Simla/Delhi as "Tirpitz."

I have known only one officer called Ma. So far as I remember there was nothing fundamentally motherly about him, and it is unlikely that he owes the distinction to any military display of the maternal instinct. On the other hand "Daddy" seems natural when applied to General Coleridge or Lieut.-Colonel Newington, late of the Seychelles. Brigadiers Fowle and Dorman-Smith share the name Chink, again of dubious origin into which it may be indelicate to poke. Puns on surnames are often transitory, although some stick; a Quartermaster-General, ap Rhys Price, was known throughout the R. I. A. S. Corps as "What price rice", and Brigadier Hildick-Smith was always called Niblick. Indian troops often corrupt names similarly. My first C. O. (Hulseberg) was often addressed by letter as Iceberg Sahib, and many Mackenzies have had their honoured Scottish names dragged in the Bengal mud in the garb of "Mukerji Sahib."

Some years ago there were two officers of the same name, but not related, who were both nicknamed by the same diminutive of their surname. If we assume that the name was Cochran a witty rhyme was circulated about them among the more esoteric Simla circles:

"There were two Cochs of equal worth,
But not, alas, of equal birth.
And he whose blood was really blue
Was much the bloodier of the two."

Recently I heard a pretty riddle regarding the famous 17th Division (Major-General Cowan). Why is the 17th Division like a boxer? Because it has a Punch in front and a slim behind. I feel sure—anyway I hope—neither General "Punch" Cowan nor General Slim will resent the unfortunate anatomical references.

On reading through this article it will be observed that nicknames appear to be applied with preponderant frequency to Field Marshals. The list is long: Bobs, Rawly, Birdie, Fat Boy, the Bull, Tiny, Alex, Monty, Jumbo. The question inevitably arises—to become a Field Marshal is a nickname really necessary? The answer is of course in the derivative.

ESCAPE FROM FAMINE

By "MILLSTONE."

FOR the reader who picks and chooses the articles he reads, let it first be stated what this article is not. It is not the story of the Army's aid in alleviating the Bengal famine. Nor is it an attempt to comment on the recent report of the Bengal Famine Commission. It is in the nature of an addendum to that report that seeks to set down how the Defence Forces of India fared during the food difficulties of India in 1942 and 1943, and how narrowly they escaped the worst of the food shortages that fell with such dire effect on certain unfortunate parts of India. If only to add another chapter to the long history of past difficulties in the feeding of our armies, which includes one expeditionary force that lived on nothing but oysters for several weeks and another that was for months substantially sustained on the flesh of wild dogs, the facts are set down while they yet remain clear.*

First for the problem. It was foodgrains. Not preserved or canned commodities; not fresh produce or vegetables. These all had their difficulties, but their aggregate did not match, in magnitude or possible consequence, the importance of foodgrains. For the period in question the Defence Services of India required, in respect of their internal and external responsibilities, some 650,000 tons of foodgrains a year—450,000 tons of wheat (flour and atta), 150,000 of rice and 50,000 of barley and gram for animals. The relative importance of wheat will not escape notice. Ponder these figures in terms of ships and apply them when in 1942 and 1943 the world shipping crisis was at its height.

Fortunately India, with an annual foodgrains crop varying from 52 to 56 million tons, was arithmetically well able to supply these relatively minor quantities which, as is seen, only amounted to little more than 1 per cent. of the whole. The question was whether, in addition to civil needs, they would be offered for sale by the cultivators in sufficient quantities and so find their way into the markets to be bought. That was the rub, because the Indian cultivator is not a farmer in the Western sense of the term.

Except for the larger cultivators in places like the Punjab and Sind, he grows only for his own subsistence. He is in fact a subsistence farmer, and he will only sell produce to the extent he requires cash to meet his cash obligations; cash to pay his land revenue, cash for cloth, for kerosine oil, for agricultural implements and accessories, etc. There are in India over 50 million of these farmers, of which the overwhelming majority will sell only when they must: when the need for cash compels. Such compulsion all too frequently means selling at least part of that which they would by free choice retain and eat. Even in the villages two square meals a day is far from being the normal custom.

Thus are the urban and other deficit areas of India fed from what the cultivator is compelled to sell. The higher the price he can realise for wheat or rice, the less he need sell. Inflation was giving him the same money for less foodgrains sold, many villages were through family remittances drawing good

* Any reader desirous of learning the history of past difficulties is recommended to read perhaps one of the best books written by the famous Army historian, the Hon. Sir John Fortescue—Vol I. of "The History of the R. A. S. C."—*Author*.

money from the army and from vast construction works such as the building of aerodromes and, at the same time, another factor added its weight. The simple things that the cultivator would normally buy were no longer freely available in the markets; his little luxuries as well as his hitherto necessities like cloth and kerosine could no longer be bought in normal quantities.

As the war marched through its opening years these factors were increasingly exerting their effect. None can reasonably cavil against the initial reaction that the cultivator, long having endured depressed commodity prices, should be allowed the benefit of the price rise that was taking place. But by November 1941, it was felt that the limits were being reached, and that a watch should be set to check further price increases. This caused the Central Government to give wide powers to the Provinces to regulate such matters. Progressively throughout 1942, these powers were utilised not merely to place export barriers on provincial borders but even to place them around districts and *talukas* also.

During this time another significant step was taken in conformity with an understanding that whilst rice could be left to be dealt with by Provinces, wheat should be controlled by the Central Government. The latter imposed a controlled price on wheat, but in the Punjab only. The result was both adverse and immediate. Wheat disappeared from the Punjab markets. By Christmas 1942, bread, the wheaten loaf, had become a rarity in the towns and cities of India. The reason was not far to seek. The Punjab cultivator could sell the millets he normally grows for his own consumption—(*bajra*, *jowar*, maize, etc.)—at twice the controlled price of wheat. On these he not only got all the cash he needed but could afford the luxury of eating wheat himself.

It was at this stage that the Indian Defence Forces began to feel the first of the chill breezes that, in the coming year or eighteen months, was to develop into a pitiless hurricane that brought civilian starvation and death in its train. Despite a good average wheat crop having been harvested in March/April 1942, wheat purchases to meet defence needs fell far short of requirements. As May crept into June, and the period for securing the major portion of the annual requirements of the Defence Services was moving to an unsuccessful close, the crisis could be clearly discerned. Unless wheat could be got from somewhere before the autumn of 1942 there would be neither flour nor atta to feed to the troops.

There appeared only one certain course, and this was taken—to ask for wheat imports on defence account. By good fortune this was possible and an import programme running into the early weeks of 1943 was arranged. But the close of 1943, saw two further difficulties. All further efforts to secure Punjab wheat to span the gap between the end of the import programme and up to the marketing of the new wheat crop in April/June 1943, proved abortive. By standing off the Punjab wheat market for nearly six months nothing had been gained. Sufficient wheat was in the Punjab, but it was underground; frozen cast-iron solid. Not all the energy and ingenuity so freely employed by the machinery engaged on the defence behalf could unfreeze it, although the devoted enthusiasm of more than one army agent brought him within the mischief of the law!

The second event was the climax to the slow paralysis that had progressively throughout 1942 been overtaking rice also. As the months slipped by, and in the effort to secure adequate supplies, standards had to go by the board. Degree by degree the anti-scorbutic qualities of hand-pounded rice had to give way for the variety the army doctor properly detests—milled and polished

rice. But at the close of 1942 that too failed. The year drew to its end with no prospects of any adequate future supplies of wheat and rice from India. Even barley and gram for the animals had ceased. Wheat and barley might be obtainable from overseas but never rice. There were no rice-bearing tracts among the Allied Nations that could approach in size and production with those of India.

It was in these last few days of 1942, that the Food Department was born and into it was thrown a handful of military officers to assist. By their lack of experience for such purposes military officers are not always suited for civil tasks but, in times of emergency, they have a quality of importance that derives from their military training. They are conscious of the time factor. It is as important to complete a job *in time* as it is to bring the job to successful conclusion.

Before describing how the corner was turned ; how the Indian troop was brought back to his regular diet after long months of filling in the shortages with groundnuts, parched gram, nuts and raisins, etc., the narrative of events is interrupted for comment as to the primary cause that had brought about the crisis. There is, of course, a whole variety of them to choose from. There was the removal in part of the cultivator's compulsion to sell that has already been touched upon. There was inflation. There was the loss of Burma rice imports (less than 4 per cent. of India's aggregate crop). There was the proximity of the war to India's borders. There were others. Different authorities have selected different combinations of these in their different degrees as the main root of the trouble.

But it is suggested that one cause above all others was of vital importance, not merely for its powerful contribution to the crisis, but also for the lesson it holds for any future emergency of like nature. It was the erection of scores of provincial and other export barriers without simultaneously making fully adequate and proper provision to lift sufficient supplies over the barriers from areas of surplus production to areas in deficiency. India is one economic and trading entity for foodgrains. The normal trade flow takes no account of the boundaries of Provinces and States, but forms a diverse criss-cross pattern of multitudinous movements covering all India. Thus trade, except within the boundaries, was progressively and substantially stifled. Zones of scarcity were created and the psychology of shortage was born.

No action to tackle the problem on a comprehensive scale was made until the Central Government, some twelve months later, set up a separate Food Department at the end of 1942. The history of that new Department, from its inception until to-day, revolves around its primary task of securing foodgrains on one side of a barrier and of lifting them over to the other side. Lest the question be asked "Why erect the barriers at all?" it must be said that judiciously applied and in the right places they constitute an essential feature and foundation for the positive exercise of statutory control for foodgrains. Statutory control must have a necessary degree of physical control as its departure point where no safe reliance can be placed on a free and willing cooperation by the cultivator, by the trade and by the public, and where there does not stand behind the law a powerful and incorruptible police force. No ; the mistake was not in erecting export barriers, but of failing simultaneously to arrange that sufficient foodgrains were carried over them.

To resume the recital of events. Around Christmas 1942, Defence stocks of foodgrains had reached a critically low level. Indeed they had substantially ceased to exist. The central reserves of the Q. M. G. were exhausted. Those

in Army areas were so depleted that in many cases maintenance was a hand-to-mouth affair. Stocks of atta with the Army defending the Burma border could be counted in days only. There was nothing in sight but imported wheat, spasmodic in its arrival, which was to terminate in a few short weeks. The possibility of further imports of wheat were at best highly problematical. Determined and immediate action was obviously imperative.

Fortunately, the setting up of a new Food Department, which gathered together under one control responsibilities that had hitherto been diffused between several Departments, permitted such action being taken. The question was whether it would be in time. A plan was rapidly developed that consisted of the following main elements :

Short term.—The first task was to satisfy the pressing needs for wheat in at least sufficient quantity to cover the gap between the end of the import programme and the marketing of the new Punjab wheat crop in April/June 1943. For this duplicate steps were projected ; a double insurance. The first was to make a new effort founded on new policy to extract frozen wheat from the Punjab. The second was to press to the uttermost the case for continued wheat imports for some weeks longer. The second task was rice. Certain Provincial Governments adjudged able to do so were invited jointly to make good the defence quota until such time as a long term plan had been put into operation.

Long term.—To introduce an all-India plan, and set up the numerous and complicated machinery for such a plan, that would lift over the barriers the foodgrains required by both the civil population and the Defence Forces. This plan was to be ready and in action before the end of the 4th month from the Food Department having been set up, *i.e.*, by the time the new Punjab wheat crop began coming into the market at the end of April.

Thus it is seen that the short term arrangements were to cover the three or four months that would be needed to introduce permanent arrangements. After a brief but agonising suspense, a further limited import programme was agreed, but only on terms. If India wanted wheat she had to find the ships from her already inadequate shipping quota. The import of munitions had to give way at a time they were sorely needed. The Army was then slowly recovering after being driven from Burma to the borders of India.

The new and parallel effort to secure Punjab wheat was at that time beginning to show signs of some success. Ultimately it met a degree of success that even the most optimistic had hardly dared hope. Some 200,000 tons were secured before the end of April, *i.e.*, during a period of the year when wheat is not by custom marketed. Incidentally, it was of great significance that the long moribund trade machinery had been induced to revolve at a most opportune moment ; just before the harvesting of what had then become certain was a bumper wheat crop. As regards the short term rice arrangements, the Provincial Governments concerned all played their parts and this separate problem was also eased.

In the first few months of 1943, not only had the corner been turned for the Defence Services, but very substantial aid was given to the civil population. In the first six months of 1943, and starting literally from scratch, over 1,200 trains of foodgrains were moved, or an average of seven trains a day. Of these an average of two a day found their way to Bengal for the civil population. Those interested in mental arithmetic can estimate the effort required to fill some 350

wagons a day each with 20 tons of foodgrains when the individual contracts for purchase ranged from a few hundredweights to perhaps three or four tons; seldom more.

The Defence Services of India owe a debt they will never know to the firm of Owen Roberts & Co., that had for some twenty years been responsible for their wheat buying. Conscious of all that was involved, their energy and devotion could not have been surpassed. Lastly, the long term all-India plan, known as the Basic Plan, was launched in good time after full consultation and agreement by all Governments in India: States and Provinces. But the degree of success it achieved is another story of no immediate concern to this narrative.

As stated at the beginning, this is not a story of India's food difficulties that commenced to have their effect in 1942. Volumes could be written on the action and inaction of the times; on the right and wrong decisions that were taken. Not all that has been written by Committees and Commissions yet tells the whole story. Provinces and States, here and there, were in deficiency. But they all grew foodgrains. Their shortages ranged from 2 or 3 per cent. to perhaps 25 to 30 per cent. in two cases. Of foodgrains the Defence Services grew none. They constituted the most heavily deficit part of India. Their deficit was 100 per cent.

This much is now clear. The food problems of India were not so much of shortage. They were those of distribution; of seeing that all, rich and poor, got a share of what was available. This can only be carried through in emergency by properly planned controls progressively applied at suitable time periods. Of all controls, those over food must be timely. A factor distinguishing food from all other commodities that Government may be forced to control is that a starving man must have food *now*. It is no use to him a week or two later when he is dead.

If effective controls are not applied in good time, or if existing they are ineffective, it is extremely difficult when the crisis occurs to recover the lost ground and the lost time before some catastrophe occurs. A dam must be built when the waters of the river are low, and not when the floods are surging and are mounting higher hour by hour.

AN INDIAN NATIONAL WAR MEMORIAL

EXPERIENCE and developments in this war have stressed the need for India to be in a position in the future to provide from her own nationals, officers for her three Fighting Services in sufficient numbers and possessing all the qualities needed by the officer of to-day in the execution of his manifold diversified duties. India has produced military officers of fine qualities and abilities but not, if the Indian Fighting Services are to be officered by Indian officers, in sufficient numbers to ensure the continuance of the firmly established reputation and traditions of her three Fighting Services. Sometimes those possessing excellent qualities of leadership have lacked educational background: on the other hand, some candidates from Indian Universities and other educational establishments who have offered themselves for commissions have lacked qualities of leadership which their education, however satisfactory it may have been academically, had not been designed to develop.

Early this year the Government of India decided that a military academy on the lines of the United States Academy at West Point, for the education and basic military training together of future officers of the Royal Indian Navy, Indian Army and Royal Indian Air Force would be the most suitable form for the Indian National War Memorial. A Committee has therefore been formed under the chairmanship of the Commander-in-Chief to prepare and submit proposals: its members include the Flag Officer Commanding R.I.N., the Air Officer Commanding Air H.Q., and the Chief of the General Staff, and also certain eminent official and non-official British and Indian civilians.

The Committee is at present examining the proposals in some detail, but the suggested broad policy for the training to be given at the Academy has already been indicated in a short explanatory note to a questionnaire issued to the public and to the Fighting Services, so as to obtain as wide a range of opinion as possible and to ensure that the Indian public is identified from the outset with the project.

Before the war, Indian cadets for the Royal Indian Navy were sent to Dartmouth: candidates for the Royal Indian Air Force were trained at Cranwell, and for the Army largely at the Indian Military Academy, Dehra Dun, although some Indian cadets were accepted at the Royal Military College, Sandhurst. Apart from the natural desire that officers for her three Fighting Services should be trained mainly in India, it is also necessary in considering a project of this nature to see whether the training which they used to receive at the British Service Institutions and the Indian Military Academy at Dehra Dun could not in fact be improved upon.

It must be remembered too that, if the Indian Fighting Services are to be officered by Indian officers, many more than were in the Services before the war will be required. The object of the training at the British Service Institutions and at the I. M. A. Dehra Dun was mainly to give cadets the necessary training in their particular Service to fit them for commissions in the lowest rank of that Service, and it has been suggested that the education given at the proposed academy in India should be broader and more general. Only essential basic military training would be given, and the academy would have among its

chief objects the development of character, the inculcation of a sense of responsibility and self-discipline and in short, of all the qualities of leadership.

The military training would be designed largely to encourage initiative and to stimulate at an early age an interest in and knowledge of the work of all three Services. This war has shown the need for the closest cooperation between the three Services, and that can only be obtained if officers have a practical knowledge of the strategy, tactics and administrative problems of all three Services. By training together and seeing during their early service life something of the work of all three Services, the seeds of that knowledge will have been sown and an interest in the other two Services formed. In that will lie one of the greatest values of the Academy. The military training would therefore include such subject as drill, P. T., scouting and field work and elementary field engineering in addition, navigation in its simplest form, boat work, driving and maintenance of motor cars and motor cycles, rifle shooting and elementary flying training.

On graduating from the Academy, cadets would be commissioned in the lowest rank in the Service of their choice, a choice cadets would be asked to make during the course of their training, and would thereafter proceed to a Service Institution for specialised training. This would be in accordance with the system followed at West Point, and the standard and duration of education, as at West Point, is visualised as being the equivalent of that at a University. The age of entry and standard of education on entry would naturally have to be adjusted accordingly, although the age of entry must also be influenced by the need to commission cadets at a reasonably early age: in the case of the Navy in particular, it is desirable that cadets should not be commissioned later than 21 years of age.

It has also been suggested that entry to the Academy should not be confined only to those who desire a permanent career in the Fighting Services, but that the Academy should provide a certain number of leaders in all walks of life to carry out the ambitious plans for the future social and industrial development of India. Although the Academy must primarily meet the needs of the Fighting Services, a proportion of cadets must be accepted on the understanding that they would spend a year or two in one of the Services after graduation from the Academy, and thereafter accept an obligation to appear periodically for a short period of training, and to be called up for active service in an emergency. Such an arrangement would seem to be of benefit not only to the branch of civil life in which the individual would eventually exercise his valuable training, but also to the Services in providing a highly trained reserve of officers.

The Academy would aim therefore at something more than just the teaching of the requisite knowledge of military subjects, for it is patent that the officer of to-day needs something more than a nodding acquaintance with such subjects as economics, geography and history. The Academy would in fact aim at producing leaders of men, leaders who combine intellectual ability with all the other essential attributes of leadership which are generally described as character. To these ends, the training, both academic and military, and the whole life of the Academy would be enthusiastically directed.

SIXTY-ONE DAYS LEAVE IN SOUTH AFRICA

By "STIFF"

OWING to seven and a quarter years in India without furlough and consequent ill-health, "STIFF" was granted sixtyone days' leave in South Africa, so his wife and he embarked on a B. I. S. N. ship from Bombay towards the end of April, 1945.

Their fellow-passengers were mostly war-weary and "dehydrated" Government officials or business men, with a sprinkling of K. A. R. officers and men going on sick leave, or being invalided for wounds. Some of them were straight out of the Burma jungles, so the news that the ship was well-stocked with South African beer and "hard liquor" raised the morale of all at once.

The voyage was pleasant and uneventful as far as Mombasa, where our K. A. R. friends left. V-E Day was approaching and spirits were high at this busy port, which has developed considerably during the war. In fact, "a good time was had by all," during the 24-hour stay. Unfortunately, V-E Day itself was rough in the Mozambique Channel, and the "black-out" dimmed the rejoicings, but the ship reached Durban in time for the final festivities after only thirteen days at sea.

Durban city and harbour are impressive with their fine buildings and streets and the bustle of war time shipping activities, but hotel accommodation was limited, and after a few days "STIFF" and his wife and son, who had met them in Durban, were glad to move up-country to a pleasant hotel at Mooi River, situated on the high veld of Natal and on the main line to Johannesburg.

South African Railways are State-owned, electrified on the main line in Natal, and staffed by Europeans, mostly of Dutch descent. The service is fairly efficient and comfortable, but overworked in wartime; distances are great and fares high, except for military on leave and in uniform, who get handsome concessions. But the narrow gauge and winding track up to the high veld (4,000 ft.) of Natal make the travelling shaky, particularly at the back of the train. This seems worth remembering for the sake of those who suffer from train-sickness.

Mooi River is a small *dorp* (market township) which claims to be the coldest place in Natal, owing to its altitude and the cold winds which blow off the Drakensberg Mountains in winter; this season lasts from May to October in South Africa, being in the Southern hemisphere. The place certainly lived up to its reputation during the few days we spent there, as there were hard frosts at night, but clear sunshine all day. This was a pleasant contrast to India in April, and we soon began to feel the benefit of the change. We visited several large farms in the neighbourhood, at one of which lives Lieut.-Colonel Richards, late Royal Artillery, three times winner of the Kadir (Pig Sticking) Cup in India in the 1930's.

Our next stage was a night journey to Johannesburg, the "Golden City," 6,000 feet on the high veld and in the centre of the Transvaal. There we were greeted with a light fall of snow, but this soon cleared and the air was like that of the Swiss Alps.

Visits to friends and a few parties gave us a glimpse of life in this prosperous and ever growing city, but prices were more suited to the pocket of a

Rand goldmine millionaire than to those of a poor "STIFF," so after a few pleasant days we moved South again to the Natal National Park Hostel, in the heart of the Drakensberg Mountains. This provincial National Park should not be confused with the Union's fine Kruger National Park in the Transvaal—sanctuary for all form of wild animal.

THE DRAKENSBURG MOUNTAIN HOLIDAY RESORTS

These mountains stretch for several hundred miles parallel to the East Coast about 150 miles inland, and they form the Western boundary of Natal, separating it from the Orange Free State and Basutoland. They rise to a height of 11,000 feet, and in the distance resemble the hills of the N. W. Frontier of India or Baluchistan; but the foothills are clothed in long grass. Water is more abundant in the valleys, some of which are well-forested, and the morning and evening lights remind one of parts of the Highlands of Scotland. Artists and amateur photographers produce some most inspiring pictures of this wonderful landscape.

A number of holiday resorts exist in these mountains, which cater for white holiday visitors from all parts of the Union, but chiefly from Durban and Johannesburg. The atmosphere is cheerful, the people democratic and friendly—quite, indeed reminiscent of Kashmir at its best. Serious climbers and walkers abound, and even "STIFF" and his wife were able to climb their thousand feet in the course of the day, after a week or two in this bracing air. Younger people of both sexes clad in the famous South African short "shorts" thought nothing of a 20-mile mountain trek between breakfast and tea.

After a bath, change and dinner we felt like dancing, and in this all partook, irrespective of age, make or shape! Altogether, we found a happy, friendly, care-free people, revelling in the mountain air, the sunshine and a real holiday atmosphere. Sure-footed Basuto ponies were available for the elderly and decrepit, while tennis and an outdoor bathing pool provided an alternative to climbing and hiking. The food was of a high quality, and as usual in South Africa simply served and cooked; the fruit and vegetables were particularly choice, while *Maas* (curd), butter and cream were plentiful.

The standard of accommodation was sufficiently comfortable, despite wartime difficulties, and prices were pleasantly low at 12s. 6d. (Rs. 8 odd) per person per day. In fact, it is difficult to imagine a better and cheaper way of regaining one's health after a long stretch in the East, than by spending a few weeks in the Drakensberg Mountains.

CITY LIFE

We actually spent a very short time in the cities, but a few notes may interest those contemplating living in town in preference to the country, and who hope possibly to take up a part-time commercial post. Johannesburg is a rich cosmopolitan city, full of bustle, and it is the industrial, commercial and economic hub of the Union. The inhabitants generally are friendly and very hospitable, but they include political extremists of all shades, and the general impression conveyed to the new-comer is one of toughness, and commercialism. Racing and the state of the stock markets are the principal interest of many.

But in spite of all this, there is a fascination and charm about the place. The Rand gold mines are the mainstay of the economic life of the Union, and the inflated price of gold during the War has been largely responsible for the

present prosperity of the country. The Afrikaners, with some truth, claim that it was the lure of gold in the 1890's that brought in the *Uitlanders*, chiefly British and other adventurers, and caused the Jameson Raid and the Boer War; they even go so far to say that this has ruined the country for the descendants of the original pastoral settlers of Dutch and Huguenot descent.

Some thirty miles north of Johannesburg is the Union capital Pretoria, which possesses some fine buildings; in some ways it reminded one of New Delhi. Lines of jacaranda trees border all the streets and provide a fine sight when they are in full bloom in November.

Durban may be called the Bombay of South Africa. It possesses a similar climate, but it is not so extreme in heat or humidity. Its fine harbour and ship-repairing and refuelling facilities have been of great value to the Empire during the recent war, as in 1914—18; this has brought its resultant prosperity to the white settlers. These are mostly of British descent; they are intensely patriotic, in the nineteenth century tradition, but they must expect to be faced with many urgent problems in the near future, of which the chief is the attitude they finally decide to adopt towards the Indian settlers, of which more anon.

Seventy miles North-west of Durban, and in the middle *veld* of Natal and situated 2,000 feet above sea level, is the provincial capital, Pietermaritzburg. The city contains some 10,000 whites, and is the market town for the surrounding farming districts. It has many fine public buildings and a temperate, if somewhat lethargic climate, which has earned it the name of "Sleepy Hollow." The two leading boys' schools and one girls' school of the Union, run on English public school lines, are situated in the higher country to the north of P. M. Burg.

The town also has a race-course, polo ground and there are three good golf courses on its hilly outskirts. One of them, the Country Club, which offers temporary membership, on generous nominal terms, to British officers on leave, is similar in lay-out to the Ootacamund Golf course, and is distinctly strenuous for the unacclimatised "rabbit" at the game. The Victoria Club, in the town, is also hospitable to visitors, and is typical of a club in a country town at home, with its old world comfort and atmosphere. Here one meets many retired I. A. officers. I asked one sprightly and fit-looking Major when he had left India. He replied "Oh, soon after the Great War." This made him over 70. He did not look as old as some of us "STIFFS" of 50!

There are several good modern hotels in the town, at one of which "STIFF'S" wife is now living temporarily. Prices are about £1 a day per person, and the standard of comfort is quite up to that of a good provincial hotel in the U. K. in peace-time.

There was no time to visit the Cape, but Capetown is reported to be the most European of all the cities, in atmosphere and climate. The Cape Province has a Mediterranean climate; it is a fine agricultural and vine-growing areas where many British are settled on farms or in the towns. The cost of living has risen considerably and accommodation in Capetown, as in all towns of the Union, is a problem at present; but this is expected to right itself in the course of the next few years.

PROSPECTS FOR SETTLERS.

If one possesses an income of say £800 per annum, and some capital, and enjoys living in a sunny, bracing climate, it is hard to picture a finer country in which to retire, as a European. The 1820 Settlers Association is anxious to encourage settlers of this category, and its voluntary officials are most helpful with advice on all subjects.

The Natal Secretary's* address is E. Fannin, Esq., West St., Durban, and it is well worth while writing to him as Hon. Secretary and giving one's particulars before arrival, when one will be sure of help with Customs and Immigration authorities. The chief warning received was not to be in a hurry to lay out one's capital, as happened with disastrous results to some ex-servicemen settlers after the last war, but to have a good look round first, and not to hesitate to ask for, and to take, the advice of the Association. It was stressed that all prices at the moment are fictitious, owing to the war-time conditions and to speculations in land and property values.

In this connection it is worth noting that there are a number of well-established building societies which will advance loans as mortgages on urban houses at very reasonable terms. On an average, it can be said that the value of any land in South Africa is no more than £3 an acre, but to build or acquire a decent residence and garden of 1 to 2 acres in the suburbs of P. M. Burg, for instance, will cost anything up to £4,000 these days. Such a house would be solid and modern, but the pre-war price would not have been more than £2,500 to £3,000, or even less.

However, as ex-servicemen settle down, the cost of living drops and as the building programme gets going, prices for houses should revert to nearer their pre-war level. But this may take a few years yet.

Similarly the price of farmland has nearly doubled in the last few years. This, however, is also reputed to be largely due to speculation. Now that peace has come and other avenues for profitable investment open for "the cheque-book farmers," as they are called, agricultural land values in their turn are expected to recede to reasonable levels. Unfortunately, cases do occur where purchasers are willing to pay the present fantastic prices. For example, a retired I. A. Lieut.-Colonel paid £5,000 for a farm of several hundred acres, which was alleged to be worth not more than £3,000 at the most. This individual was presumably in a hurry to settle down somewhere, and was prepared to pay the price asked, but it is to be hoped for the sake of poorer and wiser men that his case is an exceptional one. If an officer still possesses some health and energy on leaving India, and has a liking for, and some knowledge of the rudiments of, a farmer's life, there is no doubt that he can live very comfortably on pension on a small holding, as his own produce will keep down housekeeping costs.

The first step is to learn a little about mixed farming, or at any rate sufficient to be able to supervise the skilled native farm labour that is normally readily obtainable. The easiest way to acquire such knowledge would be to attend a series of small-holders' courses at any of the Government Agricultural Colleges, *e.g.* the Natal one at Cedara, nor far from P. M. Burg. Here, by means of demonstrations, one can learn about bee-keeping, fruit, flowers and vegetable growing and/or poultry-keeping and animal husbandry. The students are accommodated in a hostel on the College farm at a very reasonable rate: the fees are nominal, while the company is friendly, democratic and sporting.

The next step, it is suggested, is to take up residence as an apprentice or learner, on a "paying guest" basis, on a large and well-run farm, where one can study form and learn a lot while leading a pleasant, healthy, if somewhat strenuous, existence. Many owners of such farms would be glad to utilise the "Learner's" services in supervising native labour, once simple Zulu phrases have been mastered. This should not present great difficulty to anyone

* Stiff was provided by the 1820 Settlers Association with a limited supply of literature about the Union and the Association. Copies will be sent gratis to any applicants, through the Editor of the Journal.

accustomed to speaking a foreign language, *i.e.* Urdu in India. Zulu is not an easy language, and does not resemble Urdu at all, but a colloquial knowledge can be quickly acquired out in the country districts of Natal.

The farm should also be able to accommodate one's wife, if in possession and she should soon be able to learn the few differences between house-keeping in India and in the Union—the chief one being the use of "Kitchen Kaffir" in place of "Memsahib's Hindustani." Domestic servants in Natal are usually Zulu house and kitchen-boys or girls. Although their standard of service is definitely lower than that of the best, pre-war, trained Indian servants, the Zulu is much more cheerful and willing to turn his hand to any job, as he is not handicapped by caste prejudices nor trade-union principles.

Employers are required to provide all servants, indoor and outdoor, with rations of daily mealies and meat once or twice a week, but these are usually home-produce. Indoor servants are given certain articles of clothing and a blanket apiece, for all employees, is the usual Christmas present. Wages and standards of service naturally vary between town and country, but the monthly domestic servant bill in Natal is appreciably lower than in the average European bungalow in India. After all, even if the standard of service is lower, it is easier to do things for oneself in a good climate than in a bad. On many farms the mistress trains her own domestic servants, catching them young; this undoubtedly provides the best results. It must be remembered that the mentality of the average Zulu youth is that of an European child.

It is also usually the custom for the lady of the house to keep an eye on the dairy, poultry, bees, flowers and vegetable garden, and to render first aid to any sick employees. This releases the man of the house for work further afield, to which he goes on horseback or by truck. Most modern farms now possess some mechanical agricultural machinery; considerable further advances are to be expected in this respect, particularly with the development of cheap and efficient American mass-produced farm machinery. The small farmer cannot hope to be the sole owner of all such refinements, but cooperative sharing of certain machinery, on the Russian collective farm system, is on the increase. The electric supply grid system extends to many of the settled parts of Natal; this in most cases caters for domestic, labour-saving, requirements and also for the water-supply.

Assuming, then, that one has acquired the necessary basic knowledge in a year or so, the next step is to look around for a suitable property. The best sized farm is a small one of a hundred acres or so, provided one intends to go in for intensive mixed farming, and the land is good, possessing good communications to the nearest railway station or town. The condition of the farm homestead is not of vital importance, as many people prefer to build their own house to the most modern specifications: it is, moreover, perfectly feasible to camp out in the existing homestead until one's own house has been built.

Let us assume that the farm is selected and that it has a previously stocked garden, and that the usual farm buildings and stock are also there on the spot. On the pasture it should be possible to run a small herd of dairy cattle (say, Jerseys) and to keep a few pigs and a horse or two. One should then be able to maintain oneself largely on home-grown produce, feed one's labour and poultry and cattle on the mealies grown in a few fields and gradually work up a small surplus of vegetables, fruit, and dairy produce for market, to help pay overheads. The first few years may show a small loss, but one is buying one's experience and leading a full and healthy life of some use to the State in helping to feed the world.

If, in addition, as a side-line, one can grow and market certain special varieties of flowers and honey and, better still, have a few acres of woodland for one's own fuel and to provide pit-props for the mines—a certain market—one should be able to make up on the swings anything one loses on the roundabouts in lean years.

If all this is too ambitious and requires too much knowledge, energy and expenditure, an alternative is to have a reasonably-sized nursery garden attached to one's house in the outskirts of one of the big towns and to go in for special flowers. The large flat-dwelling population of the cities, and the business community, require cut flowers for interior decoration. During certain festivals the rich Jews make each other gifts of bouquets of flowers. General Sir Roger Wilson, a former Adjutant General in India, quoted an example of a retired couple who cleared £30 a month on the sale of their home-grown flowers in the Capetown flower market.

It is, however, maintained that for the pensioner in the Union, as indeed elsewhere, the more he can produce himself the better off he will be. If, on the other hand, he has not the inclination for farming or market gardening, there should be openings for him in commercial life. Part-time agencies should be obtainable for men with a certain status. Income Tax in the Union and the price of drinks and smokes are all extremely low compared with the U. K., while the cost of education at the good boys' and girls' public schools is also lower than at home; in the country districts there are, of course, no rates. Rheumatic persons find relief in the dry bracing climate up-country, and a Wing Commander R.A.F., who had been invalided out of the service on account of rheumatic fever recently, was one of those intending settlers contacted at the National Park Hostel.

SOME PROBLEMS

There are, of course, certain snags, and here are some of them :

(a) *The Colour Bar*.—This is very much in evidence as soon as one lands at Durban, and is distressing in some of its manifestations. It is unfortunately unavoidably necessary to draw certain distinctions in the dealings between white and coloured races: the white have a higher standard of life and civilisation; this they are determined to maintain: the results of mixing of colours are obviously undesirable, but it may be argued that the system could be maintained more equably than it is at present.

The present rigors are due to economic causes and to fear, based on history and the prolixity of the coloured races. The white population of the Union is still only two millions, while the Africans number eight millions and the Indian population is increasing rapidly.

(b) *The African*.—Physically, particularly the Zulu, he is a fine specimen, and at one time the Zulu in his reservations was reputed to be the finest physical race in the world, but his mentality is not high; in the towns he is exploited at times, and in certain respects, by both European and Indian; he is learning some of the vices and acquiring the diseases and weaknesses of all the races, but efforts are made to induce native labour to return periodically to their reservations, where they come back under tribal custom and influence and cease to be "detribalised."

A considerable advance has been made in this respect in the last 20 years, and the rights of the natives are safeguarded constitutionally. A cheerful creature and a willing worker, if properly handled, the African is a devil when in

drink. The uplift and advancement of the African must continue to be the care of Europeans and Indians alike and as Smuts said in his latest speech, "There will be room for all in South Africa."

(c) *The Indians*.—They are mostly the descendants of indentured Madras labour imported at the end of the last century to work on the sugar plantations of the Natal coast. Hardworking and thrifty, they are now well-established, have acquired property, and are learning trades and professions. But they have lost touch with India, and no longer remit money to their poor relations in their mother country.

Physically, many have benefited from their life in a good climate with adequate nourishment, and mentally they have advanced considerably. In fact, they now quite rightly claim to be citizens of the Union. In this case, as their High Commissioner has recently pointed out to them again, they must work out their own salvation by maintaining a higher standard of living in the land of their adoption, and not look to India for support in some of their exaggerated claims. The Moslems in the Indian community provide some of the leading trading brains in Natal, and even in Jo'burg the best waiters in the leading hotels in Natal are all Indians. They are, however, totally excluded from the Orange Free State.

The Free State, incidentally, is the most conservative part of the Union. It is actually a fact that no trains at all run in this State on Sundays; through trains are so timed as to be clear of the State's frontier between 23.55 hours on Saturday and 00.01 hours on Monday. The Cape Province does not offer so much scope to the Indian's abilities, and the climate is not so favourable to them as that of the Natal Coast.

Few of the present younger generation of Indians in Natal can speak any Indian language or have correct ideas about present conditions in India. The Hall porter of the hotel in which we stayed at P. M. Burg, a well-dressed man, who spoke perfect English, was always interested in learning about his native land from "STIFF" and his wife. All Indians, however, are proud of the deeds of the Indian Army on service in the recent war and improved relations between the Indians and whites in South Africa may be looked for, as the result of the mutual esteem of the Indian and South African soldier, gained by fighting alongside each other in North Africa and Italy.

(d) *The Afrikaners* (60% of the white population: Dutch speaking Union citizens). Are the descendants of the Dutch and Huguenot settlers who immigrated from A. D. 1600 onwards. They vary greatly in some of their characteristics, from the Old Testament back *Veld* Boer to the fine modern young, South African soldier, sailor and airman, who has done so well in this War, as in the last. Physically, they are a fine race, and they can be guerilla fighters *par excellence*, *vide* the history of the Boer War and such books as Denys Reitz's "Commando."

Intellectually and commercially, the race as a whole is somewhat backward, although shrewd in anything to do with farming. The saying goes that the Boer can make things grow where nobody else can. The young hotheads are inclined to be quarrelsome and enjoy spoiling for, and partaking in, a fight as much as the Southern Irish, whom they resemble in many characteristics and in their problems. But if one is prepared to meet them half-way and to greet them in their own language, one is made more than welcome. For the outward manifestations of British imperialism they have no use, but, if all goes well, it can be expected that they will remain contented and useful members of the British Commonwealth.

(e) *English Speaking South Africans* (40% of white population).—Kind, very hospitable, prosperous, and cheerful, they form the bulk of the white population of Natal, a large percentage of the Cape Province, provide many of the farmers of the Transvaal and most of the leading residents of the Rand. Intensely patriotic, in outward manifestations, especially in Durban, they have prospered exceedingly in this War, but they have suffered few, if any, hardships, and the Durban British, in particular, live in a world of their own.

They, and some of the Dutch speakers, produce "the poor white," who is a problem in himself. Moral fibre seems bound to deteriorate in a few generations in a land of sunshine, where life is easy and luxuries are readily obtainable, particularly when all the actual "work" to be done is to supervise the labour of the coloured man.

(f) *Politics and Bilingualism*.—All the above problems indicate that politics must play an important part in the life of the country, now and in the immediate future. In fact, politics come to notice as soon as one lands in the country, but it is possible to maintain a discreet silence to start with and not to become involved until one has formed one's own judgments.

Fortunately, the majority of the white population, *i.e.*, almost all English speakers and a large part of the Dutch, support the policy of Field Marshal Smuts, that great world figure, who is an intense believer in Rhodes' vision of a United South Africa, the leader of the African Continent. Some of the extreme Dutch-speaking people are averse to this policy and support the Nationalist opposition, but South African and British statesmanship, tolerance and compromise should be able to find a solution.

The introduction of bilingualism, *i.e.* compulsory teaching of *Afrikaans* and English in the schools, has caused a stir, but if the British speakers would pander to this honest national foible and meet their opponents half-way, it is to be hoped that this Dutch dialect will soon drop out of fashion, as it possesses little literature and is *demode* in these days of the atomic bomb. An intransigent attitude will merely cause a prolongation of the struggle.

Any people interested in the political problems and background history of the Union should read "Grey Steel," the life of Field Marshal Smuts.

CONCLUSION

The Union is still a young and undeveloped country, full of promise of a wonderful future, if the problems can be faced in a spirit of toleration by all sections. It possesses a splendid, dry, bracing sunny climate particularly suited to the retired official from India and his children, who are welcomed by tax remissions. It lacks the intellectual background of Europe, but improved communications, internal and external, radio and television should overcome this.

At the moment, it has a fictitious war-born prosperity, but secondary industries have been developed and a progressive agricultural policy is envisaged. The inflated prices are likely to come down fairly soon. Altogether it is a good country to retire to and to work in, while the urge exists for fresh air and exercise, but not to be compared with Britain as a final resting-place!

THE REHABILITATION OF JAPAN

BY LIEUT.-COLONEL P. J. GWYN

THE problem of the rehabilitation of Japan, of ensuring that she abandons for good her previous methods of getting what she wanted, and of leading her, by force and by example, into a sane and civilized approach to international affairs, is one that is of the greatest importance to us all, and especially to us in the East, where Japan has hitherto been such a domineering and dominating figure. A discussion as to how this problem is to be solved is clearly of value, but I am conscious of some diffidence in putting forward my own contribution to it, and this for two reasons.

One is that though I have a reasonably good background knowledge of the Japanese scene, after three years as a language student in the country many years ago and a longer period of years both before and during the war in Far Eastern Military Intelligence, I have no foreground. I know no more of what is happening now and what is now being decided than the daily newspaper gives me. I may, therefore, give a wrong emphasis to factors, which in the light of official knowledge I might either largely neglect as being no longer of value, or assess more highly as being of greater and more immediate importance.

The other reason for diffidence is the march of time, which in the Far East is just now marching rather fast. An article written in September, published in October, and read in November, may well contain a lot of matter which has already been discarded or acted upon and be, for one or the other reason, "stale news." This is almost impossible to avoid, but I hope that the fact of publication in this number of the Journal will re-assure readers that there may still be something to chew on.

Before we think about our cure we must be sure that we have diagnosed the disease correctly. Even before the annexation of Manchuria, Japan was far from being a "have-not" nation, and from 1931 onwards it was, in effect, one of the leading "have" nations of the world. It was, moreover, situated in geographical circumstances that made national defence a problem incomparably easier than that of India or any European Power.

What was it then, that impelled the Japanese to such a lust of conquest and such abominable treatment of conquered peoples? As I see it, there were two main causes, both originating from the particular characteristics of the Japanese people. These causes were Shinto-ism, the Japanese national religion, and *Gunbatsu*, or the domination of the military clique.

(a) *Shinto-ism*.—Most people now know something of what the tenets of Shinto-ism are. Largely mythological twaddle, added on to ancestor worship, it inculcates the belief that the Japanese race in general and the Japanese Emperor in particular are descended from the "Gods." This has been the official teaching in all schools in Japan for the last 70 years, and any criticism of Shinto beliefs has been met by firm suppressive official action, increasingly severe during the last 15 years.

The danger to the world of such beliefs is obvious. It is to be noted that although Judaism, and, I believe the British Israelites, claim the existence of a chosen race, the Japanese claim is for a race not only different in degree, but in kind. Only the Japanese—incredible though it may seem—are God-produced: how the rest of us came into the world are matters of no interest or importance. The idea of the fundamental brotherhood of men, common to

probably all other religions, is absent from Shinto-ism, and where it exists in Japanese thought is due to Buddhist influence, exercised with difficulty against official indifference or disapproval.

This belief in a divinity "made in Japan" encourages and justifies a right to conquer any territory or people solely to further the good of Japan without any conception of any duties to the conquered inhabitants. The sole authority required for action is the word of the Emperor, who is as near a "near-miss" of the Godhead as exists on this earth. If sometimes he has "the right divine of Kings to govern wrong" this is due not to any mistake of the "near-miss", but because his advisers, being less perfect reproductions of the Divinity, have made a bog of it.

It was, I think, undoubtedly the right policy to use the existing Japanese Imperial system to ensure the compliance of the terms of surrender (nothing less than the Imperial orders would have done it), but the anxiety expressed in Australia and elsewhere lest anything be done to perpetuate this system after the surrender has been completed is, I consider, well justified.

(b) *Gumbatsu*. (*Gun*, with the "u" pronounced like the double "oo" of "good", —military: *batsu*, with the "u" pronounced lightly, so that it sounds like the "bats" of cricket or belfries—clique).

The presence of military domination in the Government of Japan is a phenomenon which has existed for centuries, and has its roots in the Japanese psychological make-up. As everyone who has fought against him knows, the Japanese has the makings of a first-class soldier. He is hardy, he is brave, he is amenable to discipline. His weakness has been his lack of individuality and independence of thought, especially on any philosophical level—village Hampdens have been rare birds in Japanese history. As a result, the fairly obvious theory that Might is Right won early acceptance, the career of a soldier was considered the noblest that could be adopted, and a soldier best justified himself by the blind acceptance of orders which were to be carried out to the death.

This is, of course, a broad picture only of Japanese behaviour throughout history. There were exceptions, and noble exceptions too, and Japanese courage was such that there have rarely been lacking men who reached their own conclusions on the problems of life and who were prepared to suffer persecution and even death in support of their convictions. Liberalism, in its widest sense, has seldom been entirely absent from the Japanese scene and at one time, after the Meiji Restoration of the 1860s, there was a hope that it might succeed. But the effect of the Franco-Prussian War of 1870 killed it, and the *Gumbatsu* won the day then and progressively ever since, so that the concept of freedom of thought and action is now as alien to the Japanese mind as ever it has been.

It will be seen that the disease has secured a strong hold and is, in part, deep-rooted in Japanese history. The cure must be the removal of the cancer, a deep, sharp, and painful operation. The case of Italy was different. There, Fascism had not corrupted all the thought of the people, though it had full control of the administrative system. In consequence and remembering that at the time half of Italy—and that the richer half—was still under German rule, a caretaker Government of the King of Italy and Marshal Badoglio was a feasible half-way house to a fuller Italian emancipation. But this is not so in Japan, and any half-way house must be abandoned much earlier. While it is true that all action to eradicate this cancer from Japanese life and thought must be carefully thought out and co-ordinated, the delay should only be in preparing the full details of the general action envisaged, and not be due to any doubts as to grading the impact of the action decided on. "*Festina lente*" does not apply to the Japanese problem, and the sooner surgical action is started the better.

But, to carry the medical simile a little further, a simple surgical operation is insufficient. That may be described as negative action: we must also carry out positive treatment to get the co-operation of the patient in getting rid of the disease and getting him well again. There is a very true saying, ascribed (by me, at any rate, so far as memory serves me) to Cardinal Newman in his "*Apologia Pro Vita Sua*" to the effect that false ideas can be refuted by argument, but that it is only by true ideas that they can be expelled. The necessity for both treatments has been shown by history. We have seen for ourselves that after the first World War of 1914—18, we went neither deep enough with the knife nor fully enough with the subsequent medicine.

There is another and older example, almost as apposite. I have not read them, but I feel sure that the utterances of President Johnson and General (later President) Grant at the end of the American Civil War, 80 years ago, were unexceptionable. But the results were "carpet-bagging" and the Ku Klux Klan, with effects in the Southern States and American political make-up which are evident to this day. The difficulties and dangers of the problem are thus obvious, but equally so is the necessity for tackling it as early and as thoroughly as possible.

Some of the action I suggest below has already been taken, some may well be taken before these lines are read, and some may still be under consideration. But I have put down all the action I think necessary and I have lumped it all together, surgical and medicinal, so as to try and give a whole picture of what is required. The order given cannot be chronological, as some action may be continuous over a number of years and some may start later but end earlier.

(a) *Stripping of Japanese Colonies.*—This is already taking place and Japan's territorial right has been limited to her four main islands of Hokkaido, Honshu, Shikoku and Kyushu, with such other islands as the Allies may allow her to retain. At the time of writing, the fate of the Bonin Islands, the Loochoos (Ryukyu Islands), and Korea has not been settled.

The Bonins are of no economic value to Japan and support only a very small population. They are of very considerable strategic importance, and it is considered that they should pass under the sovereignty of America (certainly as regards the southern group, including Iwo Jima) and the Japanese inhabitants be repatriated to Japan.

The Loochoos are a somewhat more difficult problem. Their strategic importance is obvious, both relatively to China and actually as regards the air-fields of Okinawa and the harbour of Amami Oshima. But they are one of the "Prefectures" of Japan Proper, they have (whatever they had previously) little or no non-Japanese population, and their economic importance to Japan is probably greater now, in defeat, than it ever was before. Annexation by America for strategic reasons would be a possible solution, but it would involve the deportation of the inhabitants. It is suggested that continued occupation by America of the central group of islands (possibly, eventually, on a 99-year lease, as with the B. W. I.) may suffice to ensure strategic control by America, leaving territorial and economic rights to Japan.

The fate of Korea is in doubt, only to the extent that its "ultimate" independence presupposes a period of some form of tutelage until it can stand on its own feet. Korea can never be a "strong" power, compared with the countries around, of which Japan, now the smallest and weakest, has over three times the population. But she must not be a flabby one, otherwise we have the sure seeds of future strife in the Far East. The most satisfactory solution would be for America to assume responsibility for preparing Korea for the world

stage, such preparation to be undertaken and carried through and be cemented by political guarantees from America, China and Russia.

As regards the latter two States certain readjustments over Korea may be necessary, to prevent possible discord in the future. The China problem is the number of Koreans in Manchuria, especially the Chientao District: they should be returned to Korea, displacing the Japanese going back to Japan. The Russia problem is minor frontier delineation or rectification to avoid the occasion of any future Changkufeng Incident of 1938. This should prove an easy matter.

(b) *Occupation of Japan.*—This is now in full swing. It is inevitable that as the Japanese Armed Forces are disbanded the size of the occupying force will be reduced. But it must remain, for years to come, and must be located where the seat of Government is and where important strategical and industrial centres are located. This is part of the surgical operation that was neglected in Germany in 1918. How long the occupation lasts is impossible to say, as its continuance will be subject to all sorts of political considerations, but in theory it should last until Japan's behaviour has reassured the Allies that it is no longer necessary.

(c) *Abolition of Japanese Armed Forces.*—The situation on this point seems, at the time of writing, somewhat obscure. My own view is that Japan should have no Army, no Navy, no Air Force, and that her armed forces should be limited to what is required for internal order (*i.e.* police) and enforcing her rights in territorial waters (armed Customs vessels, etc). Not only should her armed forces be disbanded but, so far as possible, all traces of them, such as "National" Army and Navy Holidays, should be removed, and the Emperor should be made to call in and have destroyed all Regimental Standards which have been issued.

The Japanese equivalent of the "British Legion" is another institution which has been widely utilized for the furtherance of militaristic policy, and its disbandment would seem to be no less desirable. The Japanese "Warrant of Precedence" will also require amendment accordingly, and small but symptomatic details like all General and Flag Officers being addressed as "Your Excellency" rectified.

(d) *War Criminals.*—The War criminals of Japan are not only those sadistic brutes who tortured and killed prisoners of war. They include all those who, in positions of importance, knowingly adopted or furthered the policy of Aggression. Perhaps this list would not be a long one—I do not know—it might be less than 100 names, but the list should be a strong one.

The Japanese nation should be under no delusion that while the Allies would not take action for vindictiveness' sake and could afford to overlook the past windy trumpetings of the lesser lights, those in authority who abused their power would be answerable personally for their actions. The list should include not only Army Generals like Tojo, but militaristic re-actionary leaders like Colonel Hashimoto, and Axis-fawning diplomats like Shiratori.

(e) *Re-education.*—So far only the surgical side of Japanese rehabilitation has been considered. Re-education is both surgical and medicinal. Surgically, a purge is required in all books used in Schools, Teachers' Colleges, etc. so that the aggressive teachings of Shinto-ism and all fostering of any cult of the divinity of the Emperor are abolished. This does not mean that the Japanese are to be brought up to denigrate their country or belittle their monarchy. Japan, like other nations, has much in the past to be proud of and their monarchy may well be best suited to Japanese conditions provided there is no question of according the Emperor more than the natural human reverence and respect which his position entitled him to.

On the other side of the medal there is much to be done. Restrictions on or canalizations of the imbibing of knowledge, other than those imposed by the subjects themselves, must be removed. A critical faculty must be developed and thought, even "dangerous thought," encouraged. This is particularly applicable to Higher Education. The Universities and affiliated Colleges were among the last citadels of independent thought to be submerged under the then rising tide of Japanese militarism: they must be the first to recover again and resume their influence, without official interference, on the intellectual thought of the nation.

This essential freedom of thought entails two further freedoms if it is to have hope of success, freedom of the Press and freedom of the Radio. Freedom of the Press is not only freedom for newspapers, it is also freedom for the publication and importation of books and other literature. Freedom of the Radio similarly means freedom to listen in where one wills, and there is much to be said for maintaining radio programmes directed to Japan for a long time to come, so as to ensure that the Japanese are kept fully aware of thought and conditions in the outside world.

No one nowadays should suffer from the Victorian delusion that panaceas for world ills can be found "just around the corner"—universal suffrage was one such, free trade another, unfettered education a third. Education, however broad-based, is not in any way a guarantee that Japan will abandon her past conceptions of aggrandisement, and it certainly will not turn Japanese into Far Eastern Americans, Englishmen, Indians, or Russians—the Japanese race is far too individual for that. But what is certain is that failure to remove the present severe restrictions on thought in Japan is a direct encouragement to future nationalistic trouble and a potential source of Far Eastern strife. It is for this reason that although not a practicable policy now, I would recommend the ultimate despatch of Japanese students abroad. This widening of Japanese contacts will not, of itself, cure the Japanese malaise but it may well help towards it, and the more the barriers between Japan and the outer world are removed the better are the prospects of an enduring peace.

(f) *Economic*.—This item is, in many respects, the touchstone by which we can evoke genuine Japanese co-operation. We have promised Japan that ultimately she will receive a due share of world trade and of the world's goods, and much will depend on how we keep that promise. At the moment only two courses of action are feasible: one is that Japan must not, any more than Germany, become an "economic slum" if it can be avoided, and the other is that any relief, over and above that, must first be devoted to other Far Eastern countries, victims of Japanese aggression. This means that the Japanese standard of living, perhaps relatively high by Far Eastern standards, must drop: it has already dropped as the result of the war, it must drop still further, and the sooner the Japanese realise this the better.

This state of affairs may last for a year or so (perhaps much depending on the harvest), but ultimately Japan must trade in order to live. She can probably hardly feed herself, with her increase of population from outside and with restrictions—though it is to be hoped these will be eased where possible—on fishing. She can certainly not maintain her industries (however restricted to reduce her war potential), and therefore her population, on home resources alone as she is short of every metal except perhaps copper, and of most other raw goods except silk. Her fundamental economic position is similar to Great Britain, though not so weak and dangerous in that she is nearer self-sufficiency in the necessities of life.

Some amelioration in the Japanese economic lot may occur automatically. A surplus rice-crop from Korea, say, may go to Japan because, at worst, no one else wants it, and Korea may take Japanese coal or the like in return. The enforced "tourism" of the American Army of Occupation may eventually bring some much-needed dollar exchange into the country—this representing individual purchases of American soldiers, not the result of any requisitioning by Allied authorities. These things *may* happen—I cannot say at this distance that they will or that they are even probable.

But it is for Allied experts and statesmen now to consider the ways and means of the eventual economic rehabilitation of Japan, on however reduced a scale, not out of sloppy sentimentalism of defeated "Samurai" and not at the expense of our own lands or those of our Allies, but because (a) we have pledged ourselves to it and (b) no one, particularly in East Asia, can afford from either the political or material viewpoint, to let Japan become an economic slum.

CONCLUSION

Such, then, is the disease: such, the suggested cure. The disease is certain, the cure admittedly only probable. The two parts of the cure are, however, indivisible. To do the surgical part only, deep and unhesitating though this must be, and to neglect the later and equally important healing part is to fail in the cure. We may, perhaps for a generation, keep Japan under by surgical means alone and we may be tempted to try it this way, relying on her present abject state and the atomic bomb to keep ourselves secure. But her abject state will not last for ever and it only remains for a new material—let us call it "Japanium"—to be invented to upset our scientific lead. Japanium could be such as to shatter atomic bombs miles away from their intended target, or it could be such as to make atomic bombs a Woolworth issue so that Japan could avenge her defeat in a new and colossal Pearl Harbour all over again.

The cure must be carried out, then, in both its parts. We cannot expect at first more than an enforced and grudging co-operation from Japan. No Japanese can have welcomed the most signal defeat they have ever suffered, most of them are politically sitting on the fence, a minority will still be bitterly anti-Ally. It will take time—not always unaccompanied with firmness—for co-operation to grow and the attitude of mind to develop so that, to give a very apt illustration, the Japanese prisoners of war now in our hands are welcomed back when released, as men who did their duty to their Emperor and their country, and not treated as pariahs who were not brave or lucky enough to die.

There is one last point. The example we set will be a powerful inducement to the Japanese for good or for ill. This applies not only to our attitude towards world problems but also, and very pertinently so, to our behaviour as an Army of Occupation. Nations sometimes delude themselves into fancying their soldiers make magnificent ambassadors in the country they are in. This is not so. The presence of an occupying army, whether friendly or enemy, is always resented, but this resentment leaves no scars where the troops behave generally in accordance with the accepted mode of life of the local inhabitants. In Japan, the sanctity of personal property and the general chastity of wives and daughters are tenets which are held as strongly as anywhere in the world. It is, I consider, quite essential that any failure to observe these rules on the part of the Allied Armies of Occupation should be ascribable to a few individuals only and that the Japanese realize for themselves the rarity of these offences and the endeavours made to punish them.

THE CURSING AT NOWSHERA

BY "HYDERABAD."

IN telling this story I will keep (as I did in the two previous articles in this series, *The Riding Ghost of Murree* and *The Colonel's Ghost of Sirur*) to a factual narrative, quoting the evidence and my authorities and leaving the reader to come to his own conclusions.

My sources for the following are three in number. The first, though admitted by the narrator to be hearsay, claims to have been derived directly from an officer who had a personal though blameless share in causing one of the series of strange deaths. My second source is the testimony of a number of officers, each of whom claimed some personal knowledge of the case and at least one of whom was present at another of the fatal "accidents." And, finally, I will give another version of the incidents by a general officer who was on the spot when untimely death came to the third subject of the Fakir's malediction.

But it is time to begin with Version I.

In *Forty years a Soldier*, by Major-General Sir George Younghusband, K.C.M.G., K.C.I.E. (London, 1923), there is a chapter on hawking in the Yusufzai country, as practised by the officers of the Guides many years ago. In the course of it the author writes :

"There was only one fatal accident in my time. Two officers were riding all out, when one of them got his gaze shifted on to a kite, or a wild hawk. This he was following, when his course brought him right across the bows of the other officer, who was riding true. There was a tremendous crash, and the officer who was crossing was knocked over : his head hit the hard sun-baked ground, causing concussion of the brain, and a few hours afterwards he died.

"This tragedy was one of three, the other two being unconnected with hawking, but all forming part of a very curious story. It appears that in the corner of the compound of a bungalow, occupied by three young officers at Nowshera, dwelt in a little hut a holy man, a Mahomedan Fakir. How he came there history does not relate, but it may be that he had settled on this spot before the bungalow was built. Anyway, some cause of disagreement arose, and as Fakirs, for good and sufficient reasons, are not allowed in Cantonments, he was ordered out by the Cantonment Magistrate.

"The Fakir apparently was firmly convinced that his expulsion was due to complaints made by the three officers. So before he went he came to the bungalow and cursed them. What other curses he hurled at them is not related, but the native servants declared that his main curse was, that all three officers should die within one year. The officers themselves did not know sufficient of the language to understand what the Fakir said, but . . . merely laughed and told him to be gone.

"Now comes the curious part. One of those three was the one who was killed when out hawking with the Guides. A few months later, during the hot weather, the second of the three officers, thinking he would have a bath to cool himself before going to bed, went to the bridge of boats, which spanned the Kabul river. Walking out to the middle of the bridge he took off his clothes,

told his servant to take them down to a point he intended to get out at, and dived in. He was never seen again, nor, it was stated, was his body ever found.

"Still later in the hot weather, the scourge of most hot weather, in those days, cholera in a virulent form, broke out in Nowshera. Amongst those who were seized, and died of the disease, was the third officer.

"This is the story, as told me by the officer who, through no fault of his own, had knocked over the first of the doomed three."

That is General Younghusband's version, admittedly given at second hand. And there can be no doubt that he was misinformed on, or misremembered, important points. For in the correspondence columns of *The Times*, in November 1928, the story was told again by—amongst others—a later commandant of the regiment concerned, a major who was with the officer when he was drowned, and a lieutenant-general who was living with the same officer at the time.

Here is Version II.

When the 5th Bengal Cavalry arrived at Nowshera, on 9th March 1869, some difficulty was found in obtaining house accommodation for the British officers of the regiment. Three of them accordingly resolved to build a house for themselves, and they obtained permission to erect it upon a site in the centre of a loop formed by the Kabul river. This ground was however already occupied by what the accounts call a "Hindu fakir" *i.e.* presumably a *sadhu*, who, when ejected, laid a curse upon the officers to the effect that they and their house would come to an untimely end within seven years.

The names of the officers were Captain Anderson, the adjutant, Lieutenant Williamson, and Doctor Palmer, the regimental medical officer.

Captain Arthur Cortlandt Anderson went out hawking with the Guides near Mardan on 25 May 1870, fell, and broke his neck. (He is buried at Peshawar, where his epitaph gives his age as 29. The Bengal Quarterly Army List, July 1870, confirms the date, and gives Peshawar as the place of death).

Lieutenant Henry Stanley Williamson fell from his horse at polo, at Nowshera, on 12 March 1871, and died of a fractured skull. (He is buried at Nowshera, and his epitaph states that he died from 'a fall from his horse').

Assistant Surgeon Dean Philip Palmer, of the Bengal Medical Establishment, was drowned in the river Jumna at Allahabad on 4 September 1876. (Crawford's *Roll of the Indian Medical Service* confirms the date and place).

As for the house, it was washed away—together with the land on which it stood, enclosed by the loop of the river—when the Indus flooded during the first half of August 1876 and a bore ran up the Kabul as has happened before and since.

Amongst those who wrote to *The Times* in support of this were Lieut.-Colonel W. W. MacLean (who later commanded the 5th Bengal Cavalry); Major-H. N. Webb (who was with Dr. Palmer when he was drowned); and Lieutenant-General Sir George Richardson, who was then living with Palmer in the cavalry lines at Allahabad, and who stated that the doctor's death occurred either on the exact seventh anniversary of the *sadhu's* curse, or on the day before the period was completed.

Now for Version III, which comes from *Recollections of a Lucknow Veteran*, by Major-General J. Ruggles (London, 1906, pp. 154-155). It runs thus:

"The garrison there—at Nowshera—had been increased by the addition of a regiment of cavalry. Three officers, namely Lieutenant Anderson, Lieutenant Williamson and Dr. Palmer, agreed to club together and build one large house instead of three separate ones. When the walls were a few feet above ground, a Mahomedan native officer came and said they were building their house over where a very holy man had been buried. He did not for a moment suppose that they knew anything about it, but he came to warn them that if they went on and lived in the house when finished they would come to an untimely end. They said that having gone so far they could make no alteration now; and the building went on, was finished and was taken possession of.

"One evening—at Peshawar—I rode out, intending to go and see how a game of polo was progressing between the Nowshera team and ours. I had not gone far down the Mall before I met four men carrying a native charpoy, on which was laid a body covered with a cloth. When I asked what was the matter, I was told that the Adjutant Sahib from Nowshera had been killed at polo. This was Lieutenant Anderson, before mentioned.

"Not long after this a party was out hawking: in the chase two of the riders collided, and one horse, that ridden by Lieutenant Williamson, came down: the rider was picked up dead, his neck being broken.

"The doctor, the last of the three, was drowned out yachting, near Allahabad, if I remember right. The boat capsized, and he and his companions being good swimmers were making for the shore, joking over the occurrence, when he suddenly went down and was never seen again. On the same day the house was burnt to the ground. All this happened within the year."

* * * * *

Those are the three versions. I think we must accept Version II as the best as to the facts, but General Ruggles's (III) corrects it in one respect—the place (Peshawar) where the accident occurred.

As will have been noticed, there are discrepancies. Besides numerous minor ones, Version I tells of a Mahomedan fakir, and II of a Hindu fakir, while in III he is a "holy man," dead and buried, though perhaps there is an implication that he was a Mahomedan since a Mahomedan officer conveyed the warning—for here it is merely a warning and not a curse. The period is one year in I and III, which does not fit the facts: in II it is seven years—which may have been fitted to the facts. Version I is manifestly inaccurate in many respects: for example, it makes one officer die of cholera, and places the drowning (with a wealth of quite bogus detail) at Nowshera. But II and III are reasonably correct so far as they concern the circumstances of the death of each of the three officers, though III has the sequence wrong and confuses Anderson and Williamson. And at least it can be said that I supports II and III where it should be expected to, namely as to the circumstances of the hawking accident.

What I want to know now is: when were all or any of the deaths first attributed to a fakir, alive or dead? That the story was in general circulation in Northern India a generation later cannot be doubted, but the nearer its first currency to the events to which it relates, the more probable—or so it seems to me—is it that some "holy man" had something to do with a house at Nowshera in which the three officers lived. I will go no further than that. And even then, you may take your choice between the supernatural and our old friend, *post hoc propter hoc*.

HOW THE FOURTEENTH ARMY WAS REINFORCED

BY BRIGADIER J. H. GRADIDGE, O.B.E.

WITH the capture of Rangoon there came to an end one of the most interesting and revolutionary periods in reinforcement procedure and organization.

Little is known by the average man of the immense work and organization required to keep up to full strength the units of an Army in the field; and, when it is considered that the 14th Army had to be reinforced over high mountains, large rivers and jungle, the whole without any rail communications, the following description of how those difficulties were overcome will interest the general reader. Not only did the nature of the country present difficulties, but the speed of operations, particularly during the later stages of the advance, added many problems which, although foreseen, were nonetheless difficult to solve.

The history of the reinforcing of the 14th Army from the date of the Army's birth in November, 1943, to the capture of Rangoon and the reopening of sea communications, fell naturally into two phases; the first phase, which was prior to the investment of Imphal, was entirely by road and rail, while the second phase, the advance from Imphal to Rangoon, was entirely by air.

First Phase.—In order to get the picture quite clear, it is necessary to go into certain details of past history, as these details were primarily responsible for the working of the intricate system which had to be evolved, in order to carry out phase Two.

In March 1943, a Reinforcement Group was formed, on the same lines as that which had been operating for some time in the Middle East. This Group was incorporated in the H.Q. of Eastern Army, then controlling the war in Burma, and its charter was to control the training and administration of Reinforcement Camps then located as follows: Two at Gaya, one at Comilla, one at Gauhatti, and one just moving into Kohima. Each of these camps was designed to hold and train 3,000 men, for which the staff provided was only one Lieut.-Colonel (C. O.), one Major (2nd-in-Command), an Adjutant and Quartermaster. Each Camp had, in addition, a Major and a Captain as instructors, with a small instructional staff, all supplied from India and having no experience of the requirements of forward units.

Camps were sub-divided into ten sections each of 300 men; no provision was made for an officer to command these sections other than a note in the War Establishment, which laid down that they should be "provided from Reinforcements passing through." But to rely on a changing, and not always available, quota of Reinforcement Officers to administer and train 300 men was an impossible proposition; and it can be stated, without fear of contradiction, that this lack of officers was largely responsible for the dissatisfaction justifiably felt at the state of reinforcements received by forward units.

It was early realized by Reinforcement Group that no improvement could be expected until semi-permanent section commanders were appointed, but not

until August, 1943 were these appointments incorporated in the War Establishment, and then only through the personal efforts of General Giffard, Commanding Eastern Army.

The second, and perhaps most far-reaching improvement inaugurated was the placing of each camp on a Divisional basis, which meant that camps were reorganized to hold the reinforcements of one Division only, with a proportion of Corps troops. It should be noted here that owing to the extended and difficult L. of C., it was imperative that the number of reinforcements held forward should be greatly in excess of the peace-time estimates, and the final figures rose to as high as three months wastage, *i.e.* 18 per cent. Infantry, 9 per cent. Artillery, 9 per cent. Engineers, and Services in proportion.

The Divisional basis completely changed the aspect and morale of the Camps, as, without exception, Divisional Commanders and their staffs became personally interested in their camps, both in training and administration. Divisional flags were flown at Camp H.Q., and Divisional Signs worn by camp staffs, with the result that men coming forward felt at once that they were already part of their Division. In addition, Section Commanders and Instructional Staff were all provided from the Division, with the result that men met, for the first time in their long progress to the front, instructors who could speak with authority on the latest actions of their units and teach lessons based on personal experience.

With the reorganization of camps it was considered that they should be located as far forward as possible in order to obtain the closest liaison with their Divisions. This also conformed to the Hospital lay-out. At the time of the Japanese advance, camps were situated as follows: Three in the Imphal area, one at Kohima, two at Gauhatti, two at Comilla, one at Chittagong, also two at Gaya remaining in a transit role to provide a very necessary cushion.

Of the above, Nos. 20, 21 and 25 Camps took an active part in the manning and defence of the Imphal "boxes," whilst 24 Camp under the command of Lieut.-Colonel M. A. Hepworth, M.C. fought all through the epic battle of Kohima. When it is considered that these units were training and holding units only, and were not organized or staffed for fighting and, in addition, contained for the most part young recruits who experienced their first baptism of fire under most difficult circumstances, it must be admitted that their work was beyond praise, particularly that of 24 Camp, whose exploits have been, unfortunately, overshadowed by the more spectacular feats of other formed, and well-known regiments.

With the investment of Imphal and Kohima it was decided that it would be impossible to maintain so many months wastage forward, and the four camps were moved back (three of them by air) to Comilla, as were the hospitals. This brought Phase Two into operation.

Phase Two.—With the closing of Imphal road, it became necessary to fly in all reinforcements, and from then onwards, to the capture of Rangoon, a daily air lift was maintained, the aircraft used being the ubiquitous Dakota, flown by both the R. A. F. and the American Army Air Force. The efficiency of the air supply service to 14th Army has been written up so often that there is little need to stress it here, except to state that, throughout the latter part of last monsoon and during all the difficult times which followed, not one single reinforcement was lost in air transit. That unique achievement could only be fully appreciated by the fighting formations.

The first experience of Reinforcement Group in the organizing of an air lift took place during the time that the Imphal road was closed, and it immediately became apparent that a most stringent control was necessary to balance the claims of food, ammunition, stores and men. This control was in the hands of 4 Corps, who laid down priorities of units, and sometimes even of individuals, who were to be flown in. During the time the road was closed 10,500 reinforcements were flown into Imphal; at that time this was considered a large number, but it will be seen below what a relatively small number this was, and also what little difficulty was experienced, due to the fact that only one air-head was in operation. This initial experience served as a useful curtain-raiser to the next act, and proved of incalculable value to the staffs behind the scenes and, in particular, to Reinforcement Group and its Camps.

In April, 1944 a conference was held by Lieut.-General Slim, to place before General Giffard, then Commanding 11 Army Group, a proposal, put forward jointly by Lieut.-Colonel C. C. Williams, A.A.G. 14th Army and the writer, to provide for the establishment of a permanent organization responsible for the "fly-in" of all reinforcements to 14th Army. The number of daily sorties was then estimated at ten. This proposal was not accepted by General Giffard, as it was considered that insufficient aircraft would become available for this purpose. Nevertheless, during the peak period of 14th Army's advance, no less than 44 sorties, carrying 1,100 reinforcements were flown in, in one day.

The total number of reinforcements flown in totalled 63,500, the average daily lift for 1944 being 110, and, for the first 4½ months of 1945, 265. When it is considered that these men had to be delivered to as many as five different air-heads, collected from seven separate reinforcement camps, and made up into plane loads of 25 men, it will be realized that an absolutely fool-proof organization had to be established.

One of the most difficult problems was to convince formations and units that priorities were rigidly controlled by 14th Army, and that Reinforcement Group was only empowered to act on these priorities, which changed almost daily in accordance with operational necessity. This system did not always suit formations, but it must be obvious that with the vast number of demands on aircraft, as well as an ever-changing battle situation, one co-ordinating authority was essential.

The organization behind the "fly-in" was one which required intense study, and which had to be evolved from practical experience only, as no textbooks were available for reference, nor had any study of this problem been possible previously in this theatre of operations.

An extra commitment which Reinforcement Group was faced with was the establishment of an Air Despatching Centre on Comilla Air Strip. This was necessitated by the late briefing of aircrews and the early take-off made. Most planes flew two sorties in a day, which made it essential that reinforcements were moved to the strip the night before emplaning. A well-run and efficient despatching Centre was therefore essential, but no provision for it had been made, nor were staffs available.

However, with the help and co-operation of the Reinforcement Camps, the centre was established and accommodation provided for 600 men, British and Indian, with dining halls, officers rest room, and a canteen for all ranks. That centre was by no means perfect, and the only reason for mentioning it is to draw attention to the necessity for advance planning, and to stress that a successful "fly-in" is not only a question of providing air-craft, but of producing men at the right time and place, and in good heart.

RANDOM THOUGHTS FROM HOME

BY MAJOR-GENERAL SIR DASHWOOD STRETTELL, K.C.I.E., C.B.

TO-DAY, at last, heralded the dawn of peace. The strain of the last few days, intensified by rumour and counter-rumour, has been tense, but the good news has been received by orderly rejoicing all over Britain. I have just listened to the roar of cheers which greeted Their Majesties on their way to Parliament; never has this royal ceremonial function more happily coincided with so great, so historic, a day of rejoicing.

Five major events have marked the last few weeks: The Wavell Conference; the Potsdam Conference; the General Election; the release of the atomic bomb; and Japan's unconditional surrender. Each of these events will be ancient history by the time these words are printed, but it may be of interest to readers in India to know the reactions of those events in Great Britain at the time each occurred. Politics are barred in a Service Journal, but in the following notes I shall try to convey the thoughts and impressions of the ordinary man in the street.

The Wavell Conference created considerable interest in this country. The Viceroy's courage in summoning the Conference was acclaimed on all sides. His tact and perseverance during the meetings won universal admiration, and therefore the eventual failure created all the keener disappointment. "Why cannot the elections be held?" was the view openly voiced before Japan collapsed.* Others urged that we should, as far as possible, get the real position as it is now, not as it was when elections were last held. With communal tension as it is there may be serious rioting, but surely it is better that, if riots do occur, that they should happen while there are large bodies of British troops available to assist in keeping order, if it is necessary?

Next—the British elections. To one fairly fresh from India the outstanding fact was the impossibility of getting any real pointer from the Press of the probable results. Newspapers are so committed to party bias that prophecies made on the subject were most unreliable. For example, the ultra conservative *Daily Telegraph* up to the very last moment anticipated a Conservative majority, and even discussed whether it would be one of 30 or 70 members! This was wishful thinking *par excellence*! I always thought Labour would win, so much so that my wife and I travelled from London to Suffolk (at a cost of an ill-afforded £5) to record our votes for the Conservative candidate. The size of the Labour majority surprised both parties.

From my contacts the Conservative defeat was attributed to (a) complacency and the apathy of their electoral machinery, which had gone to sleep; (b) lack of a definite policy—there were too many platitudes; (c) failure to contradict attacks on their record, and a corresponding failure to carry "the war into the enemy's country."

In support of (a) is the fact that in about a dozen constituencies where Conservatives had lost seats in by-elections, the local associations had thereby been woken up, and, despite the general drift to the Left, in each case the

* This was of course, written before it was announced that the elections would be held.—Ed.

Conservatives in this election largely decreased the Labour majority won in the by-elections.

(b) It was quite obvious that "housing" would be the most important of domestic issues, and one which would particularly appeal to those in the Forces, and more especially to women. The Conservative policy had wobbled during the last eighteen months, but definite steps had been taken by the Conservative Ministers in the Coalition Government. Those steps were not emphasised by the Tories, while Labour was full of criticism and promises.

As regards (c) attacks on Conservative policy in the last twenty years were treated with indifference, and corresponding failures in Labour policy over the same period, whether in foreign affairs, unemployment or Defence matters, were never produced as arguments against that party. In this connection, I think personally that the stream of cheap publications, like "Your M.P.", "Why trust the Tories?" etc., cleverly worded as they were, had a great influence in favour of Labour, and met with no reply until Quinton Hogg's booklet appeared. It was too late, cost double the price of the others, and had to be withdrawn owing to an error in one of his statements!

The whole Conservative attitude was one of complacency, which turned out to be a dream with a horrid awakening. On the other hand, Labour had assiduously nursed the electorate during the last ten years and more. No Tory mistake has been left unsung; no Labour omission which has not been glossed over. In fact, the Labour policy was virile, pugnacious, imaginative and tenacious, and the success of the Party was well deserved.

Winston Churchill's "Gestapo" threat in his broadcast was a tactical error. His last tour was evidence of his doubts as to the results of the election; it was a last desperate throw and actually had little effect. People talk about ingratitude—but there is no such thing as gratitude in politics. Sad indeed it is that our great leader was not in power when Japan surrendered, but the fact is that the British, except in great crises, are averse to anything approaching personal rule, and there is no doubt that an impression had got about that Churchill was rather a dictator. Agreeable as the people were to that in the great stress and strain of war, they were against a continuation of his power in peacetime. This attitude does not detract, in any way, from the deep and lasting gratitude the people owe him for his services in the war, for his name will live as long as British history is read.

The intervention of the Liberal Party undoubtedly harmed the Conservative cause. Nowadays there is little difference between the creeds of Liberals and *progressive* Conservatives. The political struggle in the future is between "Socialism" and "the rest." In British politics there is no room for a third party. Intervention of such a party causes chaos, as the Irish party did in the old days. There are many who feel that it would be a good thing for all those who oppose Socialism to combine in one party called "National Democrats."

Much now depends on how the decisions of the Potsdam Conference are carried out. Miss Barbara Ward, broadcasting recently, voiced an anxiety which undoubtedly exists as regards the de-industrialisation of Germany. With a reduced area, and her war losses in manpower made up by immigration from East Prussia, Czechoslovakia, etc., Germany will have to support practically as numerous a population as she did in the past on her larger territory. In the past she only did this by means of a high degree of industrialisation, and it is difficult to see how she can make an economical unit if she is deprived of this outlet for her energies.

The advent of the atomic bomb caused many a headache. The general verdict is that the only prospect of peace is if some central world organisation is agreed upon which, armed with this bomb, is empowered to act to control any further aggression. Is this possible? As the King said in his speech at the opening of Parliament: "The nations of the world must abolish recourse to war or perish by mutual destruction."

Japanese surrender terms are approved by most people. Utilising the Emperor of Japan to ensure the terms being carried out was a conventional method, and might be thought to be a possible way of shattering the illusion of the Emperor's divinity. But many who know Japan consider that this illusion will not be thereby destroyed. Indeed, the Emperor may be considered a martyr for his country, and, as such, this cult will be by no means decreased. The Tokyo Cabinet's broadcast: "We have lost, but this is temporary" was ominous.

Not a few deride the idea that the Japanese populace will develop democratic tendencies or that they will ever vote for a democratic regime. Moreover, for a race, too populous for the confines of its main islands, to become an economic unit when confined to light industry appears to be difficult. However, as Marshal Foch used to say: "What is the problem?" It is "Can the nation sink their national ambitions in the cause of general peace."

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P.S.—The conferment of a Companionship of Honour on General Sir Hastings Ismay will greatly please the large number of his friends in India, while his old Regiment, the P. A. V. O. Cavalry, F. F., will be very proud that this singular honour has been conferred on one of its officers.

" A TUPPENNY HA'PENNY SHOW "

(*Letpau-Taungup : March-April, 1945*).

BY BRIGADIER J. F. R. FORMAN.

EARLY in March, 1945, 15th Corps were on the crest of a wave. Following the bloodless capture of Akyab the best part of the Japanese 54th Division had been driven back to the An *Chaung*, and General Lomax's 26th Indian Division, after a long and chanceless innings in the Arakan, had shown its versatility by carrying out on Ramree Island the army side of S.E.A.Cs largest amphibious operation.

Of the enemy there remained some obstinate remnants of the 54th Division in the An area, while the rest of the Division (the 121 Regiment and the Divisional Recce Regt.) were at and north of Taungup; south of Taungup was the redoubtable 55th Division, against which our 26th Division had successfully crossed swords throughout two Arakan seasons.

Concurrently with 15th Corps operations, the 14th Army was fighting its way south against tough opposition and, if these operations were to end in the capture of Rangoon before the monsoon, it was important to hold 54th and 55th Japanese Divisions west of the Arakan Yomas. There are several routes across the Yomas from the coast to the Irrawaddy Valley, but, except for the Taungup-Prome road, all of them are pack or foot tracks.

Hence the "concept" of a landing on the mainland between An and Taungup, with subsequent exploitation southwards, with the dual object of cutting the L. of C. to An and threatening the Prome road, so that the enemy would be forced to retain troops west of the Yomas to defend it. Originally, the plan—beg pardon, concept—envisaged the use of two or three divisions. In the end, however, since the maximum opposition was a mere two divisions, the powers-that-be made the admirable decision that the job was one more suited to a brigade group, and showed acumen and foresight in selecting 4th Indian Infantry Brigade as the core of that group. Suited us !

A digression about this word "concept." War encourages rackets, and Combined Ops is one of them! Now a racket has to have a jargon, and Combined Ops have a beauty, demanding large glossaries to explain their plethora of pamphlets. Their pet word is "concept." Moreover, concepts are like rabbits. They tumble out of dark-blue, light-blue and plain khaki hats in profusion, and—well, you know what rabbits are—proceed to breed little concepts (conceptions?) with great gusto. Finally, a huge and noble Angora concept is left, and, to give the racketeers their due, he's usually a winner. I am now an honorary racketeer myself; hence my use of jargon and, later, fearsome strings of letters from which I don't expect you to extract more than a rough, general meaning, unless, of course, you too have joined the racket. (New boys to the business have their troubles. I had a 2nd-in-command once who, at the end of a "bidding" conference said: "For pity's sake, someone tell me the difference between an L. C. T. (R) and a S.O.A. G." And some cad replied that the rockets of the former were aimed at the enemy, whereas.....).



Well, the planning went on apace, and thanks to the Navy and Air Force producing their stuff in record quick time, was completed in about a week on the brigade level. This was a remarkable achievement: The assault had to be carried out through a maze of mangrove swamps, the shortest route being some 50 miles from Kyaukpyu, where we "mounted," to our objective, by way of fantastically twisty *chaungs* (rivers). Most of the latter were completely uncharted—the few that were had been charted in 1834—and obviously full of snags, unpredictable tides and other forms of navigational nonsense. Success in planning was due to the airmen who produced the photos, the sailors who carried out the rapid surveys, and, most of all, to C.O.P.P., an invincible partnership of sailor and sapper who spend their time recce-ing enemy-held waters in unarmoured craft.

Division had given us our first objective—the area where the main coast road crosses the Mai *Chaung* near Letpan—and, of course, our order of battle, which included a formidable list of war-ships, store-ships and multi-lettered landing craft available to carry us there and support our landing. We were also told that a mighty host of aircraft, from B24's (Lies) down to L5's, would be available for bombardment and close support, and, indeed, everything else to-day's versatile airmen do for us "ground-troops." These latter consisted broadly of a brigade of four battalions, supported by a squadron of tanks, an Indian Field Regiment, a troop of mediums, an anti-tank battery (armed, curiously, with a weapon which is plumb useless against tanks—the 3-inch mortar), the usual ancillary units, and a bit of that formidable if somewhat racketsy organisation, the Beach Group; in our case, a most efficient *ad hoc* group formed for the occasion. We all knew each other—an important point; the Navy were—as ever—confident, and I had an airman who invariably produced the goods he had promised, and those goods were good. Most important, perhaps, supporting and guiding us, was a commander in whom we all had the greatest confidence.

Now, briefly, the "I" picture, and then I'll tell you the plot which we hatched. "I" are properly up against it. They rely on a number of virtually private organisations, competing against one another in the game of gleaning information, and they have Tac R, air photos and C.O.P.P. The private organisations are gallant in the extreme, but they are dependent on agents (often in the pay of both sides) and half-witted villagers, with the result that their information is a bit erratic: whereas the more orthodox naval and air channels are up against the most cunning enemy in the world, and hence their information is somewhat scarce. But still, one way and another, the picture was built up. What it showed, roughly, was about 500 Japs in the Mai *Chaung* area, with "some" guns and tanks (two of the former had had the temerity to shoot up the Navy and were, therefore, certs), and, of course, the inevitable "dumps", which the photo interpreters love to discover. Well, we'd had a bit of experience one way and another and so, privately, we wrote down the "I" estimate quite a bit.

Now a few words about topography, and I'm sorry to say you must now look at the sketch. The *chaungs* were shallow, and so only sloops could get within bombarding distance of the objective. Their shells, plus air support, might be enough, but we felt we would like some guns with their trails on the ground before we made an assault near the road-river crossing. Then there was that obviously important *chaung* junction, christened (need I say it?) Piccadilly Circus, near which one of the guns had been located and where there would clearly be a great coming and going of craft. Lastly, there was that ruddy great hill called Zisan Taung, completely dominating the objective and the approaches to it.

Based on these factors and a great many more (the old Staff College trick of writing the plan first and then making the factors fit it has, unfortunately, to be abandoned in war), we gave birth to our own little concept. We would make surprise night landings at Charlie Beach to seize Zisan Taung by a *coup-de-main*, and at Easy beach to establish our guns on Gun Island on the night of "D" minus 1. Then on "D" day (for which some bright chap chose March 13) we would sail our armada up the *chaungs* and make our main assault on Able beach, with subsidiary landings of a company at Dog and a platoon at Fox, the former to seize the features five miles north of the objective, and the latter to deal with another gun which had insulted the Navy. The whole "D" day business was to be supported by a bombardment from sea, *chaung*, air and Gun Island, together with a tremendous cab-rank of Thunderbolts—ready to come down, at the behest of the "ground troops," to blast any unexpected target with bomb, shell and bullet. Of course, we had a floating reserve and an arrangement whereby we could call off the "D" day stuff should the "D" minus 1 parties get into a pickle. You see, we had read our pamphlets. You may ask why we landed on Able beach, north of the *chaung*, when our idea was to go south. It sounds silly, but it was, in fact, the only beach near the objective which the Navy liked the look of.

By the grace of God, it all went like clockwork. The two night landings were carried out with hardly a hitch. This was a fine effort on the part of the Navy, as Easy beach, before development, was about three yards long, and Charlie was far up a very narrow, shallow *chaung*, and the night was inky. But the beaches were found, and, by dint of first-class sapper work at Easy, the guns were in action shortly after dawn, the Garwhalis having swept the island in the dark and reported all clear.

At Charlie, the C.O. of the Frontier Force Rifles established a firm little bridgehead and despatched his two parties into the blue, one to Zisan Taung (it got to the top by noon on "D" day, but, due to wireless failure, we did not know it till the morning of "D" plus 1) and one to deal with the Piccadilly Circus gun. We in the L.C.H. got this news soon after dawn, after leading the huge procession of craft and M.L.'s in the dark from Kyaukpyu to our lowering position, some two miles short of Easy beach. Though there was no information from Zisan Taung, there was at least no firing, so we decided to go ahead and, in the misty half-light, the fleets of craft crept away up the *chaung*, being led to their respective beaches by D.S.O.A.G. and other naval stalwarts.

We followed to Piccadilly Circus in the L.C.H. and soon we could see and hear the bombardment of Able, with sloops, mediums, 25-pounders, aircraft and supporting craft each engaging their own targets. The assaults were timed to a second, and apart from one small mistake by the air forces, went in as planned, and all beaches reported "no enemy seen." Anti-climax, yes; but I really believe we would have made it—with casualties, of course—even if the enemy had been there in the strength we suspected. But he wasn't, and, seeing what we had to do in the next few weeks, I for one breathed a prayer of thanks.

The L.C.H. anchored in Piccadilly Circus (about where Eros would be) to control the coming and going of the various craft (L.C.I. (L.), L.C.T., L.C.M., L.C.A. etc.) engaged in the build-up. At about 1030 hours, when I had decided to go ashore with my H. Q., I was told, somewhat brusquely, to get a jerk on. I asked why, and was informed with a rather self-conscious smirk, that we were aground. We land-lubbers kept our faces straight and got a jerk on, but our General arriving later asked them straight out what they thought they were

doing high and dry in the middle of the river, to be given the blind and somewhat improbable reply that "we've anchored here to keep the channels clear for the other craft." Never at a loss these naval types, but I noticed they had moved by the next tide.

The troops moved to their objectives rapidly, and soon the whole area of the objective was consolidated and we had started patrolling south. A satisfactory beach was found on the south bank of the *chaung* near the ferry, and this was soon developed and in use. Patrols reported signs of small tanks, whereat "I", somewhat subdued up till now, visibly brightened; but still no opposition. All this was excellent, and by "D" plus 1 afternoon, we had reorganised and, leaving the Howards and some guns and sappers to hold our base, were ready to move south. Later, this detachment of a quarter of my force to defend Letpan became an embarrassment, but so long as I myself was dependent on the Mai *Chaung* for my maintenance, it suited me and, as it turned out, an African unit relieved the Green Howards just when I needed them most.

Before I describe our move south, I must ask you once again to look at the sketch—or give it up and turn to the next article. What you will see is that the coast road—a fair weather, unmetalled, one-way job—runs more or less due south to Taungup, some 45 miles away. On the west side, all the way, are the mangrove swamps, broken by innumerable *chaungs*, large and small, with a strip of low hills in many places and dry, cultivated land between the road and the mangrove. The road itself runs through low, hilly country, with occasional small patches of cultivation; the hills are steep and, in the dry weather, covered with thick, but not impenetrable jungle. To the east of the road are the Yomas, starting with steep, 1,000 foot high foothills and culminating in the 5,000 foot peaks some ten miles inland.

Owing to the lack of cultivable ground and the severe shortage of water in the dry season, the country is sparsely inhabited, and all the villages lie on the banks of the larger *chaungs*. These big *chaungs* are the most important topographical feature of the area. They cut across the road at regular intervals of from ten to fourteen miles, and are named, from the north, the Mai, Lamu, Sabyin, Tanlwe (pronounced Tan-el-way) and Taungup *Chaungs*. They are all formidable obstacles, tidal rivers varying in width from 50 to 150 yards. All were bridged with fine timber structures—except the Mai *Chaung*, where there is a ferry—though naturally we did not expect the bridges to be standing when we reached them. As to the depths of the rivers and the possibilities of fording there was no information. Amidst a welter of colourful reports ("two thousand horses and many cannon here", or "three thousand marines" there—I often wondered if the horses really belonged to the marines—a pity they didn't) "I" had produced nothing on this most important question. We must just find out when we got there!

It was clear to me that our landing had surprised the Japs, and it was necessary to take advantage of this. I hoped by just "bumming" straight down the road at least to secure the Lamu *Chaung* and, possibly, the Sabyin *Chaung* as well. It was important to seize the second, as the Navy were pretty certain that the Lamu *Chaung* was not navigable up to the road, and so was unsuitable for maintenance. We must, therefore, get the Sabyin *Chaung* or bust, as I could not go on keeping 25 miles of L. of C. open with a total force of only three battalions, and there was no air supply for my little party. I therefore dismissed the idea of moving on a broad front, which would have been wise—but necessarily

slow—had I expected much opposition, and decided to push one battalion supported by tanks and artillery, straight on to seize the Lamu crossing as Stage 1. For this I selected the Rajputs, whom I had in hand at the ferry.

To help the Rajputs in the initial stages, I got the Frontier Force to move a company forward to a marked bend in the road some six miles south, which looked, from the map and air photos, a place of some tactical importance. As the Frontier Force had patrolled that far without opposition, the company, with due precautions, moved straight down the road and took up its position to cover the bend. This was the evening before the Rajput's advance, and that night the company reported troops, tanks and guns moving *north* past their position! What should they do? The answer was obvious. Let them come and block the road behind. The scene was set for a pretty little trap on the morrow; and so it happened.

Off went the Rajputs and the tanks in the morning, and, almost at once, they were engaged by rifle and M.G. fire from the low hills overlooking the road. They pushed on boldly and were not bamboozled into deploying for a set-piece attack, but, of course, the hills had to be cleared or the road was unusable and this meant slow progress. No sign of the enemy's tanks as yet. Soon, however, they were heard withdrawing and this was followed by the sound of small calibre guns, P.I.A.T.'s and small arms from the south—the road block! The tankettes—for this is what they turned out to be—two towing a gun each, had approached the road block from the north, seemingly unaware of its existence, and had been duly brassed up. They must have been informed, by their escort, of tanks approaching from the north and had decided, wisely, that discretion was the better part of valour. But the company which had established the block had not been spotted—an example of slack patrolling. Anyhow they gave up their attempt to break out and, with at least one tankette winged, turned north again.

The country prevented them from leaving the road and, finally, they bumped the tanks and the Rajputs, who made short work of them. Unfortunately three were burnt out, but two fell into our hands intact, one of which was used for the remainder of the operations as a command vehicle by the tank squadron commander, while the other was seized by the technicians for examination. The tankettes, like so much Japanese equipment, were soundly made and beautifully finished, but were, in 1945, little more than toys against present-day tanks. All the same, with their 37 mm. guns or M.M.G.'s and their protection against small arms fire, they would have been a nuisance to infantry. With them, we captured one 75 and one 70 mm. gun. A nice start.

Thereafter, there was little more trouble in front, and, with few casualties, the Rajputs reached the Lamu *Chaung*. The bridge had gone, but the leading troops, in face of slight opposition, waded in and, the tide being right, got across and were soon in possession of the south bank. Here they as near as a toucher caught two more tankettes, but they unfortunately got away. The Rajputs were surging on, but, after 36 hours action over 18 miles of difficult country in hot and humid conditions, were due for a rest, and so we called up the Frontier Force and pushed them through, giving them the tanks and artillery in support. All this time the 25-pounders had been leap-frogging forward in support, their main difficulty being to find sufficient open space anywhere in which to deploy.

The mediums stayed but for a time, until the sappers had had time to polish up the road a bit—it did not look good for much heavy traffic, another reason for pulling in our tail and basing ourselves on a more southerly *chaung*.

Meanwhile, the ubiquitous, tireless engineers were testing the river for a ford, and, having found one, were improving its exits and, not satisfied with that, were preparing a strip (they made seven in 10 days), building a footbridge (the ford was a deep one), as well as repairing the road, setting up water-points, searching for mines, etc., *ad infinitum*. That company got nearer to perpetual motion than anything I've seen.

Up came Brigade H. Q. and all the rest of the tail and, as the Navy confirmed the Lamu as unnavigable, orders were given to the Frontier Force to push on and seize the Sabyin area *quam celerime*. The Rajputs held firm the Lamu crossing, and I started easing what I could of the Garhwalis forward to constitute a reserve. This had to be done slowly, as the Howards had had a patrol brush or two with parties of the enemy in the Letpan area, which indicated that the L. of C. was still insecure.

One problem in conducting an advance after an amphibious assault is the inevitable shortage of M.T., due to the scarcity of L.C.T. and L.C.M. to carry them. In these operations, we were put to all kinds of subterfuges to keep ourselves going, and the D.A./Q's job was no easy one with only four vehicles with each battalion, and comparative figures in other units. It means that non-essentials must be ruthlessly cut out—no tents, no baggage except what the man can carry with him, messes on two *yakdangs*, no amenities, and even ammunition pruned to far below normal scales. But it is wonderful what ingenuity, coupled with really full use of all vehicles—and men—will do.

That night and the next day were used to get our tanks, guns and some of our vehicles across the ford, and this, too, was a bit of a headache. The ford could only be used for so long each side of high water, and tides do the most odd things on the Arakan coast; moreover, the heavy vehicles played hell with the exits. However, it all panned out in the end, and next morning the Frontier Force were well on their way. Opposition was very slight—just infantry rear-guards, and the battalion soon blasted or manoeuvred these small parties out of the way. By the evening our men were facing Sabyin from the north bank of the *charung*. Once again the bridge was gone, but what appeared to be a reasonable ford was available. Close examination was difficult as the north bank was open and under fire from mortars and small arms, but, in spite of this, by wading and using a rickety bamboo bridge nearby, the leading troops were soon across and moving towards the formidable hills covering the crossing and the village from the south. In particular, there was a steep, broken, thickly-covered feature south-east of the village, and it was from this that the trouble was coming.

Pending the move forward of the other units (I was now taking a risk and using the minimum troops on the L. of C.), a probing attack was put in on this feature. The Jap did not like it, reacted accordingly and the leading troops were duly held up, in spite of some pretty shooting by the guns. However, the F. F. Rifles persisted all night, and a good, if noisy, time was had by all—including Brigade H. Q. which, in my desire to press on, I had been foolish enough to order forward to Sabyin, which looked like becoming a bastion in the front line by midnight! But by morning it was clear that the "alarums and excursions" had been worth it, as the company was in possession of the northern end of the feature and the Jap left concrete evidence of the bloody nose he had suffered. Our own casualties were mostly wounded and not heavy at that.

It was now clear that the enemy meant business. As on the first day of our move south, we encountered formidable road-blocks, consisting of felled trees

and the odd mine and air-bomb put in here and there to make clearance slow—sometimes covering as much as half a mile of road. These blocks were covered by mortars, M.M.G's, G.D's and other small arms, but, as yet, still no guns. Delay was what they were after and quick, hard punches were indicated.

The immediate object was to clear down to a place called Zani, some four miles south of the river, as, to my disappointment, the Sabyin *chaung* was unsuitable for maintenance, whereas the Zani *chaung*, a tributary, looked promising. I, therefore, ordered the Frontier Force to secure the Zani *chaung*, assembled the Rajputs forward for the next jump, and telescoped up the Garhwalis as the artillery and tail came forward, leaving only one detachment at Lamu. Incidentally, one company of Garhwalis marched from Letpan to Sabyin, a distance of 28 miles, in intense heat in one day, and when I saw them after arrival they were unconcernedly digging themselves in with no signs of undue fatigue. Fit men.

After about 36 hours of some vigorous and rather confused fighting, in which we increased our bag considerably with little loss to ourselves, we had cleared down to Zani and were able to examine the *chaung* for our new B.M.A. C.O.P.P. was up from the sea almost before the fighting had reached the *chaung* and was soon settling the navigational problems, and our beach group detachment, purloined from Letpan, was equally quick at the beach end. In no time they had found and O.K'd a "beach" right on the road—just what we wanted—and, very little later, the first four L.C.M.'s were unloading side by side in an incredibly narrow, twisting waterway, while those splendid pioneers were clearing the B.M.A. area, digging in the ammunition, making track circuits and Lord knows what all! At last we were free of our long L. of C., and, provided that we could do another maintenance hook on the Tanlwe, we need never burden ourselves again with a maintenance lift of more than about 12 miles.

And now the Rajputs took over again, and, aided by the tanks, artillery and sappers, fought their way doggedly to the north bank of the Tanlwe *chaung*—our biggest obstacle yet—some ten miles south of Zani. Encouraged by our tankette success on the first day, I again pushed forward a company of the Frontier Force, wide round the right flank this time, to try to cut off the enemy opposing the Rajputs, but the success was limited. On reaching the Tanlwe, we at last drew fire from enemy artillery and it seemed that this crossing might be seriously opposed. It was the last river barrier before the Taungup *chaung*, and as you will see from the sketch, it bends south towards the Taungup *chaung* and gives access to the main Japanese defences east of Taungup, by the back-door so to speak.

By holding the line of the Tanlwe, the enemy could cover both our possible routes of advance. To bear out this contention, the bridge, which had looked intact in recent air photos, was burnt and the enemy was in evidence on the south bank. The Rajputs probed forward to examine the river for a crossing at Kindaunggyi, but, finding none, swung east up the river towards what appeared to be a ford recently used by the Japs. That night the existence of the ford was confirmed, and, with great boldness, the leading company pushed over at once. The move was entirely successful. The company had confused fighting throughout the night, but they seized and held a small hill overlooking the river ford, allowing another company to cross in the early morning and pass through to seize more important features. Simultaneously they pushed a company up the river to cover the *chaung* and track by which I thought that a hook might materialise.

The crossing and east flank being secure, the next thing was to bring forward our tail again, though the L. of C. to Zani must be kept open until the Tanlwe was pronounced navigable for our maintenance craft. This time we brought up the mediums; a fearsome sight it was, too, to see the matadors and great long guns grinding their way along the totally inadequate, hilly, twisty track; but they made it, thanks to fine driving and, again, excellent work by 72 Field Company. Once again I jumped Brigade H. Q. too far forward, this time to take the inevitable rap over the knuckles in the shape of a dose of shelling. We spent an uncomfortable night in our hastily, and I may say inadequately, dug slits, my second-in-command and myself sharing a particularly small one, sitting at opposite ends and bumping our heads as we ducked at the approach of the nearer ones—most undignified. From crack o' dawn there was intense activity with pick and shovel, and the next night most of us were well and truly underground!

A word or two about the tanks. We had a squadron less two troops—seven valiant old Lees. They had completed some astronomical mileage at the start of the operation, and naturally, as time went on they began to fall out. By dint of superhuman efforts, the men always managed to keep one troop in action and, by cajolery and threat, we actually succeeded in obtaining one "new" (reconditioned) tank from Ramree and an odd engine or two. Once, when a Lee caught fire and finally blew up in a cloud of smoke and glory, we were down to two, but that was the nadir. The infantry have reason to be grateful to the men of 146 Regiment, R.A.C.

And a small story about C.O.P.P. We had always had our eyes on the Tanlwe as our eventual B.M.A., but all reports said the mouth of it was held by the Japs. Nothing daunted, off went our C. O. P. P. party to have a look-see. The navigational problem was knotty, but discretion indicated a night approach. On and on they chugged, engines turning slowly to reduce noise; nearer and nearer to the supposedly occupied positions. At length their craft grounded. This was what they expected from the air photos, so they had the dinghy ready and Sapper slipped over the side to paddle himself to the beach. Now the engines were stopped and the only sound was the murmur of the water under the dinghy's bows. Suddenly a dog barked. Sapper holds his breath, but before he can begin paddling again, a machine gun stutters from one flank and the flash and crack of rifle fire blazes in front. Sapper ducks and prays. To start the engine, surge forward and pick up Sapper was, luckily, but a matter of moments, though it seemed an age in that flimsy dinghy. They got away untouched, blasting the enemy position with their weapons before they left. Two nights later they were back, and this time they found us the channel we needed.

Now we were faced with our hardest job, the move forward from the Tanlwe to Taungup, 14 miles over the worst country we had yet encountered, with an enemy now determined to stop us, and that Upper Tanlwe side-door leading right into our basement. As well as the Tanlwe route, there were two other fair tracks running S.S.E. from the Kindaunggyi area towards the Prome Road east of Taungup. All these gave access to my flank as I moved forward, and must, therefore, be watched. They were not, however, suitable for the move forward of a force as big as ours, dependent as it was on wheels for maintenance and with tanks and guns to take along, too. Unfortunate—and it looked as if the task wasn't on with three battalions. But just then we got a windfall.

The first African battalion coming down from An had reached Letpan, relieving the Green Howards, who hurried down the road with their attendant

battery to join us just when we needed them most. Things looked better, and we were now all set for Taungup. First, I gave the Garhwalis the task of passing through the Rajputs and securing the Pt. 460 ridge, which lay like a great black slug across our path, some five miles to the south. The road wound over this ridge, and in doing so passed through a deep defile in which our Tac R. had already reported a sizeable road block. I thought this might be a tough nut to crack, but considered that with the speed of our advance we might still have the Jap on the wrong foot.

The Garhwalis went at it in businesslike style, clearing and occupying the small, lightly-held features between the river and the ridge, and each time immediately patrolling forward to find out the form on the next objective. If this proved to be unoccupied or only lightly held, the patrols hung on, reported back, and immediately build up troops moved forward to join them, consolidate and again move forward. In this way they caterpillared forward, making steady and safe progress. Next day all was set for the advance to the ridge. To support this, it was necessary to use the air, as the steepness of the reverse slopes were a problem for the gunners. Bombardment and strafe by some 30 Spits, Hurris and Thunderbolts was soon arranged, and, guided by the air V.C.P., they made a very nice job of it. The Jap considered he had "had it," and hastily departed, largely due to the fact that for once he was not properly dug in. This let the Garhwalis in (they had been lying very close up during the air attack), and what I had feared would be a very tough job was achieved with practically no loss to us, but some to the enemy, I am glad to say.

I must here pay a tribute to the air V.C.P., which was invaluable. On occasions the V.C.P. would call in fighter-bomber aircraft on their way home from offensive recess on the Prome road and, with no previous briefing of any sort, would, with the aid of R/T and No. 77 smoke grenades, bring them down in a strafing attack on some worth-while target, sometimes in very close proximity to our own troops. The troops, safeguarded by their yellow recognition umbrellas, in which they had great faith, and certain of "Nobby's" (the V.C.P.'s) ability, were quite confident in the success of this very extemporaneous support. At other times "Nobby" carried out some first-class Tac R., and even tried his hand at photography, though this was not awfully successful. Incidentally, air V.C.P.'s are made up of another pretty stout combination—R.A.F. in the front seat and the Royal Regiment behind. In spite of my good-natured jibes at the combined ops. racket, it can now truly be said that "we be all of one company" and a very great deal of that happy situation is due to our own "Supremo." Perhaps he and his henchmen will achieve more concrete fusion of the services now that the war is over. I for one am sure it is the answer, though I can see the snags sticking out a mile. (Some of the snags are being slowly washed away through old age, but others, equally formidable, are still hale and hearty!)

Now there confronted us a hilly, thick, jumbled area of country, with precipitous ridges running up to 800 feet on both sides of the road—admirable defensive ground. This terrain persisted for about five miles beyond the Pt. 460 ridge and then came lower, isolated hills, scattered over some fairly open, cultivated country bordering the north bank of the Taungup *Chaung*, the whole of this low-lying area being dominated by Pt. 635, a massive feature across the river. Then there were the Tanlwe and the other two routes I mentioned pointing like daggers at our vitals—thrusts that must clearly be parried if we were to use the axis of the main road for our advance. There was a still lively and hardening enemy of at least two battalions, some of the divisional recon regiment and an

unknown number of guns (we had already experienced 75's, but 105's and, I think, at least one 150 were to show up later); a fairly strong array, which did not include 55th Division in our calculation. Lastly, there was the B. M. A. at Kindaunggyi to be safeguarded at all costs. On the credit side we were four battalions, a few invaluable tanks, and a definite superiority in guns, air and, by no means least, morale. Those were the factors, and here is the plan.

The Rajputs were left for the time being to hold the ford and block by locally offensive action, the Tanlwe and the eastern of the other two routes leading into my left rear. This they did with success for many days, having one or two brisk encounters with the enemy who had, as we thought he would, assembled something like a company just up the Tanlwe *Chauangs* some two to three miles from the ford. The forward Rajput locality in the Tanlwe valley annoyed the Jap, and he was persuaded to do just what we wanted—to attack it. It was quite a scrap while it lasted, the Rajputs getting in amongst them with the bayonet, the Subedar's orderly chalking up three to his personal account. The Indian troop seems to like this close quarter stuff, a sure sign that morale is at its highest. I am the proud possessor of a really beautiful sword, captured by a wounded naik in hand-to-hand combat with a Japanese captain, who, sword in one hand and Luger in the other, charged the naik from close quarters. He lost his sword, his Luger, and his life.

Next in the lay-out we had the Garhwalis in firm possession of the Pt. 460 ridge. Then the Frontier Force were in hand in the B.M.A. area south of the river, and the Howards were assembling on the north bank after their move forward from Letpan. The tanks were in the act of getting themselves over the river, and we were gradually pushing the guns forward, too—I say gradually, as fording in tidal rivers is not quick work with heavy vehicles. All this was not without attention from the enemy, who kept popping up here and there and, of course, shelling the bridge area, the approaches to the ford, which were very wide open, and areas in which he thought our guns were located. Annoying, sometimes alarming but ineffective.

We decided to pass the Frontier Force to the front again, supported as usual by the tanks and artillery, though the extreme steepness and thickness of the country made artillery fire difficult and chancy, and stopped tanks doing more than rumble forward to engage opposition located near to the road itself. Hence, the operations of this battalion over the next few days was hide-and-seek infantry stuff and only on rare occasions did the enemy stand and defend determinedly any particular position. When he did, we liked it, as we could really develop our superior punch; but the "Piffers" were equally at home with the hide-and-seek war, and gradually the battalion score mounted and our grip on the road was extended.

The weather was now most exhausting, as anyone who has fought in southern Arakan in April will testify. Every drop of water, bite of food and round of ammunition had to be carried manpack to the hill position away from the road; so, after the Frontier Force had located stiff opposition on Pt. 370—the last commanding feature before the more open ground north of the river—I told them to hold and gave the Howards the job of seizing the feature and certain smaller ones covering the road to the bridge and the track leading to the ford under Pt. 633. The Green Howards in their first real action in Burma set about their task in style and, with the aid of the tanks, all the artillery (the gunner mortars came in useful in this very steep terrain) and the M.M.G's of the 12th

Frontier Force Regiment—old and trusted companions—seized Pt. 370 at the second time of asking. Their casualties were light, and they worked forward to capture their other objectives, with the tanks at last having some scope for manoeuvre in the more open ground.

It was during this phase that the Lees had a duel *a l'outrance* with a Jap 75, cleverly tunnelled and hidden in a hill-top some 1,200 yards from the road. This gun was sited to cover a bend in the road which the tanks had to pass, and it had already forced them to withdraw more than once by its accurate shooting. At length, under cover of artillery fire, the Lees managed to creep round the corner and get into position to engage, which meant, in effect, putting themselves bang in the line of fire, as the gun was drawn well back into the narrow tunnel. Then the duel began, but the fire of the Lees was so fast and accurate that the end came quickly. Later, I saw the .75 in its tunnel—or what was left of it—and the shooting would have earned a two-inch group at a hundred yards.

East African troops now began to arrive, and these, taking over from the Rajputs on the open Tanlwe flank, gave me another battalion to play with. As the Howards had been hard at it for two days, I brought the Rajputs up to move down the track to seize the hills overlooking the fords from the north bank. Finally, I intended to stage a two-battalion attack on Pt. 633 preparatory to an entry into Taungup itself.

The Rajputs began by tackling a nasty razor-edged feature south of the track opposite Pt. 370—the ridge on which the .75 had been posted. They were engaged in this battle when the Jap made several night attacks on Pt. 370, culminating in a determined attack at dawn, which drove the Howards off with some loss. This was not too good, as it left the Rajputs in the air and in danger of isolation, but I was loath to withdraw them and so, as the Howards were stretched a bit, I decided to bring in fresh troops to give Pt. 370 a real crack. The Frontier Force was nearest, and in double-quick time their Sikhs were ready for the job. It was the usual problem. A precipitous-sided hill with a narrow approach from one direction only. But there were compensations.

With the Rajputs where they were, we could get the tanks round the south of Pt. 370 to shoot at right angles to the infantry advance. In addition, the F.F. Rifles themselves had worked a company forward to the other, northerly, flank, and to this, with great labour, we humped a couple of M.M.G.'s and their ammunition. Then we had eighteen 3-inch mortars to plaster the reverse slope, and the Rajputs to block the bolt holes to the south-east. The tanks and M.M.G.'s pinned the enemy to his defences, the former in particular with the help of an F.T.O., keeping up their fire until the Sikhs were within feet of their objective. Then, with their famous war-cry, the Sikhs went in. It was all over very quickly, in spite of tough resistance and an M.M.G. and an L.M.G. sited to fire straight along the narrow causeway between the two pimples that made up the crest of the feature. There were 16 Japs killed in close combat, and many more were discovered later who had been accounted for by bombardment. It was a copy-book action and was particularly pleasing in that our own losses were surprisingly light, an unusual occurrence in an attack on a knife-edge which the Jap had made up his mind to hold.

The Rajputs pressed on and, not without the loss of some valuable lives, reached and secured the river bank and began patrolling across it and away to the north-east to threaten the rear of the enemy, who, all this time, had been probing in on our L. of C. He even had the impertinence to shoot up, from close range, my Brigade H.Q. on a night in which we had already been subjected

to a bout of shelling. Most of the stalwarts who live in H.Q. steadfastly restrained their itching fingers, but one small unit were duly rocketed the next morning for what I described as a totally unnecessary Brock's benefit, only to turn the tables on me by neatly producing a dead Jap with identification and all!

By now the Africans were arriving in large numbers. Some were put under my command, but I was told not to undertake further operations that would involve heavy casualties, as we were wanted for the assault on Rangoon. However, I was allowed to remain in charge up in front for a few more days and, before we left, we completely dominated the north bank of the *chaung* and Taungup itself. To satisfy the ambitions of my battalions and the insistent demands of to-day's all-powerful Press—and, incidentally, to carry out my superior's orders—I officially "took" Taungup by passing two strong fighting patrols of the Rajputs and the Frontier Force across the river and into the "city" on April 14. This looked good in the papers, and was a tidy ending to the campaign, but was probably the least important tactical success of the whole operation.

And so, in almost exactly one month, we had done the job and were ready for bigger fry at Rangoon, though in the event the exploits of 14th Army deprived us of a battle there. On what our American friends would call "global" war standards it had been a tuppenny ha'penny show, but a most interesting and enjoyable one. We had written off quite a number of enemy—I refuse to enter for any scoring contest—and had suffered gratifying small losses ourselves. We had proved once again that we had the measure of a very tough fighter, and that, when you remember the early days of 1942-43, was a very satisfactory state of affairs.

ELUDING THE GERMANS FOR NINE MONTHS

BY LIEUTENANT R. C. SALVI.

TOBRUK was attacked at 0600 hours on June 20, 1942. The main push came through the Mahratta Lines, which, after constant bombing from air and artillery, were overrun.

At 0830 hours I was ordered to counter-attack with my carriers. We ran into heavy tank fire—and I was taken prisoner. The German officer who captured me asked for my revolver. I told him it was not with me, and let him search my empty holster. He ordered me to follow him through the mine gap. When we were alone except for the dead or wounded I took my revolver from my trouser pocket, which he had neglected to search, and shot him through the neck. He fell on a concealed mine and was blown to pieces. I ran clear of the Germans, but my luck was out. I was caught the next day, when mopping up began.

All prisoners were herded together on Tobruk aerodrome. We were given no food or water, and several days later were marched from camp to camp to Barchi, whence we were flown across the Mediterranean to Bari. There we remained until the beginning of August, when we were transferred to a permanent camp at Aversa, twelve miles from Naples. In this camp were 374 officers, including V.C.Os., and life was bearable except for the reprisals. Our first Red Cross parcels came eight months later; meantime we had had to make do with the shirt and shorts in which we were captured. But for the International Red Cross life in the camps would have been unbearable.

After the Allied landing in Sicily we were moved northwards to Central Italy. The new camp swarmed with fleas and bugs. We had scarcely started putting it into shape when the news of the Italian Armistice arrived on September 8, 1943. Our joy knew no bounds. On September 13 our Italian guards left their sentry posts, downed arms and hurried off home. There was chaos in the camp, and hundreds of prisoners walked out to try to contact the Allied forces.

Myself and eight other officers reached the outer barbed wire but turned back at the suggestion of a senior officer, who advised staying the night and seeing how things went the following day. Next morning, September 14, we had finished breakfast and were coming out of the deserted mess when we found the Huns had surrounded the camp. What fools we had been to miss our opportunity of getting away the previous day! But we did not lose confidence in our ability to escape, and four of us planned, with the help of the Italian camp doctor, to get away.

The German commander wasted no time. He broadcast this proclamation throughout the camp: "From to-day we Germans are in command of the camp. We shall treat you better than the Italians. We respect the International Red Cross and shall follow all international conventions. We are not going to take you to Germany, nor to move you from this camp, as we have no transport. Do not try to escape. We have strict orders to shoot anyone who tries to get away. Our senior officer will discuss any complaints with your senior officer."

Our plan was to hide our kit in the M. I. room with the help of the Italian doctor. The medical orderly was to hide it on the roof, where we had stored sufficient food and water to last four of us for a week. That night the doctor was to help us escape in civilian clothes. But when I arrived there at sunset I found the others had left and that the original plan had been abandoned. Worse, half my kit was missing. I decided to break through on my own. Cautiously approaching the barbed wire, I was stopped by a sentry, who warned me in English. I walked up to him and said "Good morning." "Good morning?" he said. "Are you trying to escape?" I grinned and said nothing. He then said he was not a German, but an Austrian, and that he would allow me to escape if I gave him my wrist watch. I agreed and was told to return between 8-30 and 9 p.m., when he would again be on sentry duty. As I turned away he demanded the watch, but I told him I would give him a thousand lire as well as the watch, provided I got through to the other side of the wire, but only afterwards. He agreed.

I discarded my officer's uniform and hung about near the men's barracks. An R. I. A. S. C. soldier whom I knew to be an interpreter asked me if I had any particular plan of escape; he had and would like me to share it. His plan was surprisingly easy. A German officer, also an interpreter, had promised to give him a pass to take four other soldiers in search of escaped Indian prisoners. The party was to be allowed three days, and would move up to 50 kilometres away. I was sceptical, but agreed to meet the R. I. A. S. C. man at 8 p.m.

Having packed my kit and filled my water bottle I again met him at 8 p.m. Our pass was ready, but the German officer wanted our thumb impressions on it. I found that our companions were to be an officer whom I knew, and two brothers. Except for the man from the R. I. A. S. C., we pretended we could speak no English. A document permitting five of us to leave the camp in search of escaped prisoners was translated to us. If we failed to report back on its expiry we were liable to be shot by any German who encountered us. Our right-hand thumb impressions were taken on the document and it was handed to the R. I. A. S. C. man. They didn't think of taking a duplicate copy and we hurriedly left the room before the idea entered their heads.

As we left, the German officer explained how unfortunate it would be for him as well as us, if we failed to return in the given time. Asking us if we needed anything for the journey, we inquired if a German N. C. O. could escort us from the camp at 0330 hours to avoid the sentries shooting at us. And at that time on September 17, 1943 the German guard commander escorted us outside. Five minutes later we were free. We determined never to return.

Half an hour later we sat down and discussed our plans. We were five: an officer from the Mahrattas, one from the Rajputs, an N. C. O. of the 2nd Royal Lancers, a 9th Jat N. C. O. and the R. I. A. S. C. man. We decided to go northwards towards Rome, as the southern area where the Allies were advancing was under close German control. Our intention was to make for Vatican City. We set out along road and railway line, being careful to avoid meeting strangers. By 6 a.m. it was necessary for us to hide, so we took cover among some thick trees. As we lay there exhausted we heard the sound of church bells. Following the direction of the sound we came in sight of a village at the foot of a mountain.

It was called "Villa Sansebastiano," was between Rome and Casino, and contained 200 to 250 houses. As we came near we met an Italian soldier, who, like many others, had deserted, and who was on his way home. We asked him if there were any Germans in the village, and he assured us there were not. At

6-30 a.m. we reached the houses, and fifty to sixty men, women and children crowded round us shouting, to our surprise, "Americani!" "Americani!" As the crowd continued to grow we decided to hide ourselves outside the village, to avoid Fascist and Nazi spies. A villager led us to a thick wood and we started to prepare food and rest for the day.

Several Italians gathered around and talked to us. As we could not light a fire we asked an Italian boy to get us some bread, giving him some of our coffee powder. He ran home while we had a quick wash. A few minutes later he came running back empty handed and said his mother wanted us all to breakfast in her house. We accepted and returned cautiously to the village. The news that we were back spread, and as we sat eating seventy or eighty villagers crowded round to get a glimpse of us.

Though only one of us could speak Italian, we found we could follow quite a lot of what was said, providing it was spoken slowly. The breakfast was a real feast and, having eaten, we felt sleepy. But the crowd continued to watch, and I suggested that it would be better for us and for the villagers if we continued our journey. But they all insisted that we should not go forward into the difficult country ahead, especially as the Allied troops were advancing rapidly, and our dark skins gave away the fact that we were not Italians. We could not refuse to stay, so I suggested a compromise—that we would hide outside the village and that our hiding place be known to only one of the villagers, who was to bring us food once a day when it was dark. To deceive any enemy that might be about we would walk out and give the impression that we had left to contact our troops.

The woman who had fed us insisted that we should stay in a hut in a vineyard which belonged to her. Her son and a man named Romano would bring us food. While we were talking, we were told that four Yugoslav prisoners of war were in the village and wished to meet us. I told one of our party to meet them and tell them we were leaving to join our troops. They were in need of money and we gave them about 100 lire. At 2-30 p.m. we marched out of the village with our kit and made a great show of leaving in the direction of the front line. But our walk ended in the vineyard.

There our life, though risky, was pleasant enough. Daily we feasted on grapes, tomatoes and sweet potatoes. A week passed and few knew our whereabouts. But on Sunday crowds of men, women and children came from the village dressed in their Sunday best. Some had brought mouth organs and an accordion, and they began singing and dancing. It was a colourful sight, but dangerous. We hoped it would not happen again, but day after day villagers came along until we decided that it would be better for the safety of all of us if we left for another hiding place.

We had now spent a fortnight in the village, getting food daily, but there was little sign of the approach of our troops. The nearest point they had reached was over 200 miles away. We decided to take no further liberties with the kindness of the villagers, and to leave. But the man who brought us food said he had a new plan. All the villagers were related to each other, and they had arranged that we should come to the village each night and dine each day with a different family. He told us the Allies had landed at Pescara, about 60 or 70 miles away. So we decided to stay another fortnight.

But the risk grew, and again when we said we had decided to go, an Italian woman offered us a stable just outside the village, to which she would send us food every evening. From it we had an excellent view over all roads

leading into the village. We made a hole in the roof, and with a pair of binoculars I had obtained from an Italian army officer we had a good view of all that was going on around us. A week later we were glad we had taken this precaution, for on October 12 I saw a German truck arrive and stop near the market place. We made haste to leave, and decided to cross the mountain and hide on the other side. Just then an Italian girl came running up and warned us that Germans were in the village; but an hour or so later they left. That night our food was brought as usual.

Next day four German trucks arrived, one containing motor cycles. As our whereabouts must be well known in the village, we went to another stable. Soon it appeared that the Germans had decided to stay and make their headquarters in the village. They put up notices in the village square ordering all Italian youths of between 20 and 27 to report within a week for enlistment. If they failed to do so their houses would be searched and any men between those ages who were found would be shot on the spot. People found harbouring prisoners of war would be shot. Anyone handing over an escaped prisoner would be given 1,800 lire reward; anyone handing over a spy or transmitting set would receive 5,800 lire reward.

At midnight on October 14 we left with 15 young Italians who had no intention of joining the Fascist Army. We took a week's provisions and made for a place in the heart of the forest, arriving at 8 a.m. on the 15th. With the exception of a few shepherds and wood-cutters there was nobody in sight. We camped apart from the Italians, lest we endangered their lives. It poured all night, but next morning the sun shone brightly, and we set up a temporary nudist camp to enable us to dry our clothes. We built a small hut. Each night it rained; the days were bitterly cold. We had only three blankets among the five of us. After a week the Italians decided to return, but we stayed.

After a few days our friend Romano came, assured us that the Germans were quiet, and persuaded us to return, so in the last week of October we were back again. This time we split into two parties and hid in two different stables concealed in piles of hay. But on November 1 it was rumoured that German spies had discovered our hiding places and we left the village, making for some huts seven or eight miles away in the mountains. Life was easier but far from comfortable. On November 7 there was a heavy snowfall, cutting our communications with the village and leaving us for three days without food or water. As we were about to leave on the fourth night Romano arrived and said he had come to take us down.

He said the woman Adelina Picente, who had been helping us, had insisted that we go to her house to take refuge from the snows. We went. Our bodies were numbed, so we sat round the fire with Adelina and Romano and did justice to a fine meal, well aware that several hundred Germans were in the village and that a couple of their trucks with sentries were only 100 yards away. At midnight the woman led us to the stable roof, where we slept soundly in the hay. We spent two months in that stable. Several times Germans came in search of stables for their horses and we could hear them moving about below us.

Days passed and our chances of obtaining freedom appeared to grow less. We craved for fresh air and sunshine, and above all we wished to lessen the responsibility of Adelina by leaving her stable. But nobody else could be expected to hide us as in the second week of December a German detachment of 30 to 40 men arrived. Our Italian friends, however, would not let us leave before the New Year.

Towards the end of December hope returned. We managed to contact an Indian Padre in Vatican City. Our message was carried by a brave Italian named Antenelli, who had a German permit to run his bus between Rome and the village. Through the Padre we got in touch with the British Embassy, and they started sending us food, clothes and Italian currency. Our channel of communications got so good that I was able to transmit information about movements and dispositions of the enemy. My messages were written on thin paper rolled into cigarette papers and sealed with tobacco at each end.

But our contact did not last long. On January 8 three Yugoslav prisoners of war were caught in the village, and the villagers were very frightened. The Germans were about to begin a house to house search; it was broad daylight, and hundreds of Germans, including many spies dressed as civilians, could be seen in the streets. We decided to make a dash for a deserted stable 400 yards away. The women of the village stood sentry at the mouth of each lane to warn us of the presence of any German. Once I received a danger signal and spent several minutes hiding in the gutter under a big culvert.

That night we discussed our next move with the Italians. They would not hear of us leaving, and it was arranged that we should split up and remain separated. Our chief difficulty was the Italian Fascist spy who had betrayed the Yugoslavs. I overcame this by sending for him and forcing him to hide one of us in his home. He could scarcely betray us then! We split up, and I made my way back to the house of Adelina, as she had requested. Thus we remained hiding under the very noses of the Germans. March 1944 was the worst month of all, for then the Germans continually made house to house searches and reinforcements arrived.

On one occasion the Germans surrounded the village to catch some Italian youths who had prevented the Carabinieri from collecting the annual tax. I could not leave Adelina's house, so she locked me in a cupboard. The Huns came in and searched. I could hear their voices. But they did not touch the cupboard. On another occasion a German soldier walked into the house while we were having our breakfast. I rushed from the fireplace to the bedroom just in time. Again my luck held. He was there for nearly an hour while I lay under the bed.

Yet on another occasion I was sitting with Adelina's 80-year old mother near the fireside when a German soldier entered. I heard the noise of his boots approaching and rushed into the bedroom. The German sat down and started talking to the old lady in broken Italian. I could see him from the darkness of the bedroom, as there had been no time to close the bedroom door. It was an hour before he left. During all this time the old lady sat calmly by the fireside, scared though she was.

A German brigade on the way to the front once halted in the village at about 0230 hours. Not knowing this, I had got up as usual at 0430 hours and was going towards Adelina's house. After about fifty yards I met a German soldier, who shouted out in German. It was dark and I was dressed as a civilian. I thought it better to approach him than to arouse his suspicions by running away, so I asked him what he wanted in Italian. In broken Italian he then asked me where he could find a certain house. Pretending to know it well I pointed in the opposite direction. I returned to my hiding place and remained there all day. It was fortunate I did, for Adelina's house had been invaded by about twenty Germans, and she was very frightened.

At the end of April I decided it was time to move on. We got news that the enemy knew there were six escaped prisoners in the village. I therefore sent word to the others that on April 24 we would move to a village 40 miles away in the direction of the front and in the heart of the forest. Two decided not to leave, so I, with the Havildar and Naik, went. We took a month's raw rations, and, led by three Italians, we arrived and found some other escaped prisoners there, including Americans, Russians, French and South Africans. An American told me that the Germans had been reconnoitring there, and that he and his friends were going to leave in the direction of the front. He pointed out a hut 1,000 yards away where we might hide. I explained the position to my Italian friends and sent them back, telling them I would bury a bottle containing a note if I had to leave. The American told me the Germans knew there were prisoners of war in the forest and advised me to go to another hut. Our Italian friends later returned, found my note, and followed us to our new refuge.

A few days later, while collecting water, I noticed smoke coming from the hut at which we had first stayed. Creeping near, we heard Germans talking. We left our water buckets, packed kit and started off, but the weight was too great and we had to hide it under a rock and run for our lives, taking only a large Italian loaf. A mile away we took cover in a clump of trees, and had just concealed ourselves when we saw a German soldier with a rifle 100 yards away. We heard him shout: "No, not here" in German to his companion. Three more Germans arrived, but after ten minutes they made off. One must have passed within ten yards of us.

It was now extremely important for us to get back to our "home" village, for it was Saturday, and on Sunday our Italian friends would be bringing us food and would be caught by the Huns unless we warned them. We started off and hoped to get there by midnight. Rain poured down. Reaching the main Casino-Rome road at sunset we waited for it to get dark in order to cross it. A friendly Italian had shown us the best place to do so, but we missed it, when suddenly we heard a German truck approaching. We jumped over the hedge and rolled 20 ft. down a slope into a ploughed field. Above us we heard the truck stop, but after about five minutes it started again. We made a dash across the road, and had to cover the fifteen miles to the village in two and a half hours to get there by midnight. After that time the place was too closely guarded. We took the short cut over the mountain and arrived just in time. Our friend Romano brought us out a pile of grass so that we could bed down for the night; he had been about to start out to bring us food in the forest.

The situation in the village was serious. Germans had listed all families suspected of helping escaped prisoners, and Romano's name and that of Adelina were on it. We made ourselves as comfortable as possible on the mountainside, getting little food and often going hungry for days. Every Italian leaving the village was searched and if carrying more food than was sufficient for one person he was marched off for questioning. We found that our former two companions had also left the village and were living in the mountains, and though we rejoined forces we agreed to remain hidden separately. It was every man for himself. Sometimes the shepherd boys wandering over the mountain with their flocks would give us milk from their goats.

On May 8 we heard that Romano and his family and Adelina's mother were to be arrested. But if they hoped to catch the old lady they were disappointed, for she was not at home when they arrived to arrest her. This made the Germans furious, and they doubled their threats and precautions. Our food supplies were completely cut off. Even the shepherd boys could no longer give

us milk, for the Germans stopped them from taking their sheep to graze in the mountains.

Thus for fifteen days we were completely without food and lived on fresh grass and water. Help came on May 21, when two Slovak soldiers forced into the German Army saw one of our party on the mountainside. They told him they were friends and offered Italian currency, but our man emphasised his desperate need for food, which they promised to bring. True to their word, on the evening of the 22nd they brought two German rations, said they wished to join the British forces, and would show us the way through the German defences. They suggested that it would be better if it was a bigger party, and our friend told them there were five of us, but that three of the party had been starving, though if we could get food we could be all right in a few days. Next day they brought a leg of meat, three loaves, and coffee.

I sent a message to Adelina, asking her to come with us. The Germans were searching for her, had published her photograph calling her an English spy and ordering her to be shot on sight. She replied that she was willing to come, and we all agreed to start with our Slovak friends on the morning of May 28. The Allies were now north of Casino and the Germans had planned that day to move the Slovaks back across the River Po. On the 24th I heard from Adelina that the British were only 40 or 50 miles away and advancing rapidly, that the Germans had packed their stores and were preparing to withdraw. Her letter made us change our minds and we decided to stay.

Life grew harder. Nothing could get through to us. We returned to our diet of grass and water. By night we slept together in a cave over a spring, rising at 7 a.m. and hiding separately during the day. On June 1, I awoke at 5 a.m.; something urged me to warn my companions to disperse before sunrise. We did so, but being too exhausted, four of us were lying together near the cave. Suddenly we heard a German voice asking a shepherd boy where the cave was. It was not more than 150 yards away. Looking in that direction, I saw two Germans and an Italian civilian inspecting the spring. It was dry as we had just filled our water bottles. We heard the German say there was no water, and I saw them go into the cave, but luckily there was no trace of our belongings there.

From that day on we slept on our own in the rocks, meeting only at night to eat our grass, drink our grass soup and perhaps eat some rock snails if we were lucky enough to find them. One evening we managed to catch a stray baby goat; we built a fire and roasted it as best we could. It was not properly cooked, but tasted delicious.

Increased activity of the R. A. F. and the blowing up of railway lines and bridges showed us that the Allies were getting closer. Germans had started looting the Italian houses; and it became even more dangerous for us when they started searching the mountainside for sheep and cattle. One day rain forced us back to the cave; just then I saw in the distance some Germans and Italians chasing cattle. I ran like mad to my hiding place at the top of the mountain. Suddenly bullets came over my head. It seemed that at last the game was up. But I continued running and reached my hiding place.

Ten minutes later I heard Germans talking loudly near where I was concealed seven or eight feet in a crevice. I could see the legs of a German soldier above me. There were shouts and more firing. But after ten minutes the Germans cleared off. After that we decided not to budge from our hiding places until nightfall. It was lucky we did so, for thereafter the Germans sent up a

section daily one hour before sunrise and an hour after sunset. One of their patrol was always stationed on the rock beneath which I was hiding.

Suddenly on June 6 the patrols ceased. On June 7 they blew up a bridge near the village. That night we saw Verey lights in the sky nearly twenty miles away. They were green and white, and we guessed they were Allied. In the quietness I heard footsteps in the distance. We froze and prepared to hide when a woman's voice cried: "Ramchandra!" How welcome Adelina was! She had come up with Italian friends to tell us the Germans had left the village. We waited till morning, when we all went down. It was agreed that I was to take command of the village and could arrest any suspicious characters. Adelina, for whom the Germans had hunted high and low for six weeks, was to go nowhere unless escorted by one of us.

The whole village turned out to welcome us. We went to have a hair cut, shave and a good bath. After a huge lunch we inspected the houses which had been closed by the Germans; every one contained mines and booby traps. We put up notices showing the whereabouts of these mines. With the help of an Italian who knew how to handle mines I thoroughly searched Adelina's house and removed five mines and several booby traps. While searching her house two Germans were caught and brought before me; they were shut up in a room and placed under armed guard.

On the morning of June 10, 1944 New Zealanders arrived. They gave us food, clothes and news. I remained for a fortnight or so and on August 14, 1944 arrived in India. I shall never forget the experiences of those nine months. But above all I shall ever remember the brave Romano and Adelina, who were prepared to sacrifice everything for us. I shall see them again some day.

INSURANCE OR INVESTMENT ?

BY BRIGADIER ROSS HOWMAN, C.I.E., O.B.E.

IN 1917, sharing a submarine watch between Marseilles and Malta with a shrewd, hard bitten gunner major, we spotted a swiftly approaching, bubbling streak, and hailed the bridge. "Thank Gawd my money'll keep dry even if I don't" remarked my companion.

Of the ingenious method whereby he had safeguarded his bank notes against immersion this is not the place to speak, but I knew (for he had told only a few minutes earlier) that he had also insured his baggage, and in a wholly orthodox manner. A vision of my own shiny black uniform case and brand new outfit, travelling in the hold at owner's risk, rose unhappily before my eyes.

This youthful experience, and cogitation upon the thought processes which had led me to take an unjustifiable risk, have helped me in more recent years to understand, if not to condone certain of the motives which induced pre-war British Governments, and others, to default on their war risks insurance premiums.

It was largely condemnation of these motives which led, in 1940, to the fall of the Chamberlain Government overnight, and, in the years which have followed, scorn has been poured upon the pre-war politicians of all parties who led us close to national disaster. The allegations have been made that those at the head of affairs (with Churchill and Eden as honourable exceptions) were blind to realities, and that the financial cheese-paring of the Defence Services was condoned or even promoted for vote catching motives of self-interest.

This is true up to a point. There were doubtless politicians prepared to sink their convictions and anaesthetize their consciences for personal motives, and financial advisers who counted cuts, any cuts, Heaven pity them, as personal triumphs, but—when all is said and done a democratic country usually gets the Government it deserves.

As a nation we are easy going ; we are prepared to like almost anyone and are pained and surprised to find that at times there are people, or even peoples, who dislike and mistrust us. Even when this is forced upon our realization we are, or at least were, apt to say "It'll be all right on the day." This attitude is further reflected in such half-humorous sayings as "We always start a war with a retreat" and "We lose every battle but the last." Our salvation has! ain, and has for centuries, in our powers of improvisation and recovery, in an inability to know when we are beaten.

So, say what one may of the politicians, there was no great national urge towards defence re-armament until the necessity stared us in the face. Whatever others may think, our strong natural inclination was (and still is) to live at peace with our neighbours, and to go to considerable lengths to avoid provoking trouble. Our primary misfortune was that there were men at the head of affairs before 1939 who, for one reason or another, were content to reflect this national tendency far beyond the limits of justification or common sense.

In the years since 1939 we have, though unprepared for war, fought our way through to victory but, because unprepared, at a crippling long term cost (not least financial) which many are only now beginning fully to realize. That we should again invite disaster is unthinkable but, at the same time, we are faced with the urgent and unavoidable necessity for diverting all possible resources towards the basic need of national reconstruction. It seems, therefore, that only one possible formula can govern the strength of our post-war armed forces—namely, the determination of the minimum strength which is adequate to protect our interests against aggression and which, at the same time, will enable the Empire to play its due part in the preservation of world peace. The key words are “minimum” and “adequate.”

In offering a contribution towards the translation of this formula into effect, it is firstly necessary to knock down a ninepin which is too firmly based to be ignored. There is a vocal school of thought which declares that armies, navies and air forces are so much obsolete scrap, and that the atomic bomb rules the world. Stephen King-Hall, for example, recently declared that “War is Obsolete” and reduced the Services with a stroke of his pen to an “Interservices Atomic Bomb Defence Ministry.” While the profound influence which the atomic bomb may exert on war, or peace, is indisputable the first shock of its impact has perhaps unsettled other brains than those of the survivors of Hiroshima and Nagasaki. Apart from the fact that, hitherto, a means of defence has been found of every new means of offence, it is not always expedient or advantageous to use a powerful offensive weapon even when it is available. Gas and bacterial warfare, for example, in spite of dire forebodings by the prophets, were not used in the last war though neither the Japanese nor Germans were people likely to be squeamish about their employment if they had thought it worth while. Their stumbling block lay in fear—of retaliation.

Thus without labouring the arguments and counter arguments at present so prominently featured in the world's press (not always, perhaps, for pure and disinterested motives) the acceptance of Commander King-Hall's thesis would, at the least, be premature. Nevertheless, certain hard facts do emerge from consideration of the implications of the atomic bomb and (if it be accepted that no pacts or treaties can be guaranteed to control the world-wide tide of scientific research) of future inventions of a similar type. All such weapons are likely to have certain features in common, namely extreme compactness and portability, and the powers of immediate and area destruction.

These characteristics are new in warfare. Such previous innovations as gunpowder, tanks, poison gas, magnetic mines, submarines and aerial bombs could, broadly speaking, only be put into effect gradually and locally. There was thus a breathing space in which to devise counter measures, or even to build up at least equal or superior resources of the same weapon. This breathing space can no longer be counted upon.

Moreover, even if atomic weapons did not exist the development of offensive land, sea, and particularly air armaments in this war has been such that the initial impact of their employment against an unready opponent might have far reaching, if not overwhelming, results. In this connection, too, it must be remembered that ultimatums and declarations of war are obsolete (we speak in terms of aggressors): speed has largely conquered space and brave men even if trained and in quantity can be relatively ineffective. As an example of the last, the sudden collapse of Japan when two thirds of her army was still uncommitted and intact astonished many people, even some who were very well informed indeed.

It follows that our qualities of recovery, improvisation and long distance heroism (I think the word is justified), valuable as they are in any circumstances, can no longer be relied upon to pull us through. Clearly, then, our post-war defence forces must be sufficiently powerful to withstand sudden and intensive attack by orthodox land, sea, and air forces and, in addition, must be provided at all times with equipment for immediate defensive and or retaliatory action against the use (or the threatened use) of weapons of the atomic bomb type. The key words here are "sudden" and "immediate."

Since this article was first written I have read, and here interpolate, extracts from a statement by the United States Assistant Secretary of War on America's post-war military policy. Speaking on September 21, he "warned that a devastatingly violent assault would be the first step of any new aggressor." He continued, "The race against time must be won before the initial attack, or we may never win it", and pointed the consequent necessity for the generous maintenance of scientific research and engineering, backed by plans for swift industrial mobilization, and armed forces trained and ready to use the modern instruments of war they were given.

These, in a nutshell, are the obvious deductions as I see them from the painfully learnt lessons of the last decade. If so, we, who have hitherto never been prepared to foot the bill for instant readiness to meet attack, have now no choice but to do so—and at a time when British resources have been strained almost to breaking point. It is immediately obvious that the principals of economy of force, in the widest sense, must be applied to our post-war defence organization. We can afford nothing which is useless, unnecessary, obsolete, or ill positioned, whether it be men or equipment.

To eliminate waste effort those at the head of affairs must clearly keep themselves constantly and accurately informed of the precise nature and extent of the dangers which they are planning to counter. This vital information can only be provided by their intelligence services. This may seem a simple, logical and acceptable statement of fact but our own history goes to show that it has been far from generally acceptable.

The link between good intelligence and the proper direction and economy of force has frequently been remarked upon by foreign commanders. As one typical example, Frederick the Great maintained that "If one could always be acquainted beforehand with the enemy's designs one could always beat him with an inferior force." The point to be emphasized is that Frederick made his observations *in peacetime* and the Germans have never since disregarded the implication. That Hitler's intelligence service was hoodwinked for years before the war by their Russian opponents, with the results we know, is a commentary upon the relative aptitude of the two nations for the art and not upon the wholeheartedness of the German intention.

We ourselves have consistently neglected our military intelligence services in peace and, characteristically, have relied upon hasty improvisation in war. As far back as 1895 a distinguished officer,* lamenting the "haphazard organization of the intelligence service in peace" wrote as follows:—

"A thorough organization of the intelligence service is anything but superfluous; if nothing more, the immense consequence of being always cognizant of the enemy's doings clearly proves how very necessary it is. Let us disabuse our minds that a service of this description can be improved in the field. Nothing of the sort;

* Colonel George Armand Furse, C. B., in "Information in War."

for it requires such nicety of arrangements, such provision, such knowledge of the general circumstances of war and of human nature, that a sound basis must be distinctly laid down for it in peace, and able men trained to undertake it."

To trace the subsequent spasmodic rises, and even more abrupt falls of our military intelligence organizations as danger threatened, materialized and apparently receded, would be painful and redundant. Suffice to say that in 1939 we had, in many respects, gone back to the organization of 1914, let alone 1918. While the purblind politicians who promoted the growth of calamity by visibly starving our defence estimates were primarily to blame, some degree of fault must attach to the Services themselves. However limited the overall resources available, the internal allocation of these resources is a matter which a Service itself decides—and it would be a bold man who claimed that, pre-war, the allocation made to military intelligence was commensurate with its responsibilities.

Reduced to its simplest terms, the line of reasoning which led to this was something as follows : "There is a limited amount of money to spend, so which is the more attractive proposition—a fine modern tank (or perhaps aircraft, or ship) which can shoot, and be seen, and heard, and admired, or a sheet of paper (which few will even know exists) setting out what is known of equivalent alien types." The tank, or whatever it was, won nearly every time—an understandable but very illogical choice. Weapons of war such as tanks do not of course operate in a vacuum; they are, or should be, constructed largely with an eye to destroying their enemy counterparts in combat by exploiting their own strength and the weaknesses of their opponents. The first step in their design should therefore be an intensive study of all available information relating to the enemy types which may be encountered in battle. The provision of the necessary data is the task of Intelligence and, especially in peace, it may be neither easy, unhampered, nor, for that matter inexpensive, but the capital expenditure involved is infinitesimal in comparison with the waste and danger which may ensue from misdirected planning and provision.

If informed planning was and is highly important in the case of "orthodox" equipment, it will be vitally important when guarding against the dangers arising out of weapons such as the atomic bomb. The provision of adequate counter measures and/or deterrent means of retaliation must depend upon the possession of exact intelligence as to how, why, where, and when such weapons may be employed. The whole process of ensuring that timely provision is made will, as the spokesman of the U. S. War Department put it, be a race against time, and the race cannot start until the necessary intelligence is in our hands. There is no room for a haphazard peacetime organization here.

There is yet another aspect of Intelligence which is directly relevant to our post-war problem of combining economy with adequate and efficient readiness. In this war it has been shown that when our resources have been equal to, or greater than those of our opponents, a high grade Intelligence and Counter Intelligence organization has been a valuable aid to a commander. Together, these services have enabled him to select the most advantageous target and then to strike in secrecy. The consequent attainment of surprise, besides bestowing direct operational advantages, has conserved men, money and material which can never be in too plentiful supply.* Two major examples were the tactical

* Maj.-Gen. Fuller made a pertinent observation on this point in an article entitled "Waste not Want Not" when he wrote "Waste of force is a depreciation of capital which, even should it not lead to defeat, must of necessity be carried as a debit, into the peace which followed the war."

surprises achieved by the invasions of North Africa and Europe, and it seems reasonably certain that a third would have been provided by the invasion of Malaya.

It was however when our resources were inferior to the enemy that the greatest need for the intelligence services existed. In 1940, after Dunkirk and the fall of France it was of vital importance that our extreme weakness should be hidden from the enemy. When Churchill made his historic call to the nation "We shall fight on the beaches...." he added something in a low tone that only those sitting close to him could hear. It was, "I don't know what we shall do it with—choppers I suppose." The situation as regards material was nearly as bad as that, and it was the emergent measures taken to blind German intelligence that enabled Churchill to bring off one of the biggest (and bravest) bluffs in history. How often has it been said "If Hitler had known!"

In the following years, when we were fighting a long uphill battle against odds both in the West and East, it was largely the work of the intelligence services (as has indeed been handsomely acknowledged) which made it possible for Allied commanders to achieve the seemingly impossible, and on occasion match quart with quart, or better, from a pint of overall resources. Men and material (most notably, perhaps landing craft) were, for example, secretly moved about the world to be concentrated where most needed, and while thousands of Allied personnel may have known that in their particular theatre our forces were temporarily immobilized, the enemy remained in ignorance.

To sum up the conclusions from our arguments:—

One.—The developments of modern armaments, particularly in terms of speed of employment and concentrated power of destruction, demand that our post-war forces should be maintained in a state of constant and up-to-the-minute readiness to resist aggression.

Two.—Those responsible for the planning, organization, and maintenance of these forces must, to enable them to fulfil their task, be kept speedily and accurately informed of the extent and nature of any potential threat.

Three.—The consequent need for a highly-organized and integrated intelligence service is emphasized by the paramount necessity for observing economy, not only by eliminating, but also by preventing the introduction of any elements unfitted for the task in hand.

Four.—The possession of an efficient intelligence system can enable a commander to augment his strength beyond the limits of the purely numerical size of his forces, by the skilful and economical disposal of these forces. As a corollary, the weaker his forces the stronger, relatively, should be his intelligence organization.

That it should be necessary to state a case for intelligence at all is held by some to be the fault of intelligence itself. The primary charge is that of over-secretiveness and if this should refer to the withholding of the *products* of intelligence from those who require them, then the charge is a fair one. Reticence over *method* is a very different matter, and if this were more generally understood by intelligence and its users alike, misunderstandings would seldom arise. A far more serious matter is the complaint of the man in the street that, in the past, half the causes of war have piled up without the public knowing that the threat existed at all. The extent to which the public is taken into confidence is, of

course, a matter of high policy, but it is certainly the duty of intelligence, given adequate resources, to ensure that those at the head of affairs are provided with full data on which to base their decisions.

That adequate intelligence resources will be forthcoming for this and all other purposes there is every reason to suppose, and when an outline declaration of post-war policy is made it may well finish with similar words to those of the United States War Department spokesman already referred to, which were—"We must keep the United States informed through an adequate and integrated military intelligence service." Nevertheless, since the resources of the two countries are dissimilar, it has perhaps been well to point out why, and how, an intelligence organization is an essential factor in solving our own special problem of combining efficiency with economy in the armed forces.

HOW THE CHANNEL ISLANDS FARED

BY LIEUT.-COLONEL H. DE L. WALTERS.

IT was a blustering day in mid-July when I reached Croydon Aerodrome to fly to Guernsey, there to see how the Germans had treated my home during my absence. The 'plane—so very small in comparison with the Dakota in which I had travelled from India—was most comfortable; my fellow passengers were a Sergeant who was a Jerseyman, a woman with a small child, and two men recently freed from an internment camp in Germany.

The flight was uneventful and soon we were over the Cherbourg Peninsula and on over Alderney. Wire and other coast defences were clearly to be seen—and I thought wistfully of the many times I had bathed there. Later I learned of the island's vast underground network of defences. So good were they that when one of our warships heavily bombarded the place on one occasion the enemy suffered only six casualties, as the entire garrison went underground. Up to the day of my flight no residents had been returned; they were not allowed to do so until the minefields had been cleared, and from above it was hard to picture any place more peaceful. The only sign of war, apart from the beach defences, was an occasional crater.

Thence it was but a short distance to Guernsey. Jersey, Sark, Herm and Jethou stood out clearly as we flew in over St. Sampsons, Guernsey. There were the old familiar greenhouses; and peacefully chewing the cud were a few of the world-famous cows; trees seemed as plentiful as ever, so rumours of wholesale felling were evidently untrue. The airport was deserted, except for a couple of officials outside the reception offices, as I set foot on Guernsey after an absence of six and a half years. The only sign of German occupation was the word *Ausgang* painted on one of the doors. Outside the airport I found a small bus waiting. Luggage was stowed in, and we were away.

Have you ever come back to a place you loved after long years away? It is a thrilling experience. Everything seemed unchanged, except for the abnormal number of empty houses and German directional arrows painted on walls at every corner, each one of which was numbered. One old-time dangerous corner had been removed altogether; all the trees along St. Julian's Avenue were intact; and soon we reached the Royal Hotel. Inside it was the same as it always had been; but it was very empty. The ballroom had not been used by the Germans. I expected to find very little food, but it was the opposite. So much had been brought over from England that four courses were served at dinner that evening. Landing craft had been used to get the food supplies on shore—and they caused terrific excitement amongst the islanders, who had never seen anything like them before!

My visit coincided with two important events—the arrival of bacon from England and the "first off" from the local brewery. It is not possible to convey in words how touching these two apparently ordinary events struck the people—their incredulous surprise when they saw bacon on their plates, and the excited talk and slowness with which it was eaten. As for the beer, that was different, for there was an obvious pride in the fact that the local brewery had overcome its difficulties. The pubs quickly opened their doors, the hotel bar was ready for business, and soon there was the familiar click of the billiard balls, the hum

of conversation, and the smell of tobacco smoke. "Things are getting back like old times" one of the State officials remarked as he replaced his pint pot on the counter, winked at the bar-maid and ordered two more!

Friends spoke to me frankly about the Germans. On the whole they had behaved well. They pretended to stick to international law, but were clever at "legal" evasion. For instance, they wanted the Islanders flour, which was stored in the larger of the two mills on the island. To seize it would be contrary to international law, so they requisitioned the smaller of the mills and worked it themselves. Later they said it was too small for their needs and that they must have the larger one within twentyfour hours, adding that the islanders could remove their flour but that unfortunately no German transport could be spared. The islanders consequently lost their flour supply. Towards the end, however, the Germans were worse off than the islanders, and their troops grew so weak from lack of food that they couldn't walk the length of a road without frequent rests.

Next morning I went to my home up St. Julian's Avenue, past Candie Gardens and the public library. Many empty houses still had the names of their late German occupants painted on the doors; and wooden huts for stores, canteens, guard-houses, etc. had been erected quite indiscriminately. As I entered the main gate of my home I noticed that a hut had been built amongst the trees; whoever had done it was an artist, as a small rustic bridge carried a winding path up to the front entrance.

I was relieved to find the house almost intact, except for a hole in the veranda roof, caused by one of the German A. A. shells, and some panes of glass missing. I must confess I was more fortunate than some Jersey residents, who found their houses broken up inside, even to the floors having been demolished—sheer vandalism. I had to exercise care going round the garden, as it was still mined, and had become so overgrown that the Germans themselves had no idea where the danger lay. Already four of our troops and nine Germans had been killed in the island by stepping on mines.

The garden had grown wild, and it will take an army of gardeners to put it in order again. A huge windmill had been erected to supply electricity, but it had since been removed by prisoners; the foundations had been sunk sixteen feet until a beautiful blue granite had been struck. Several trees had been hacked down for firewood, including a beautiful tulip tree and a centuries old clematis creeper. Rabbits, hares and goats had been kept in outhouses for food.

The small tropical garden, in which flowers from all over the world used to flourish, was ruined. This lovely garden had been painted over and over again by many celebrated artists, and pictures of it have appeared in the Royal Academy. Its charm had long been admired, and it had, on occasion, been the scene of many a romance, for one walked through a small wicket gate from the world of the present into the world of the films. One can wander past bamboo clumps, under date palms, and climb rocky terraces adorned with masses of bright flowers and creepers, redolent with exotic scents. Bougainvillea, tobacco plants, the black iris from Palestine, pokers from China, and thousands more are all here, or were. I still have hope that in time the damage can be effaced. A friend told me that a German major used to sit in the summer house and paint, and I hope he managed to portray some of the beauty of this garden in his pictures, so that he can show his friends something of the more beautiful and peaceful side of life.

Contents of my house had been pillaged. Every time a German went on leave he took some ornament or knick-knack. Some of the larger pieces of furniture, and most of the books in the library remain. One room had been converted for hanging joints of meat, and the cellars had been turned into store-houses, with slotted wooden shelves seven and more feet wide. German equipment was strewn everywhere, and a rubber gas-mask case has made me a very acceptable sponge bag.

Early on during the occupation the house had been used as a brothel. I can well imagine this, as I found a quantity of face powder imported from Paris, and quite a number of French books. Later the German Provost Corps took over, and the house was run under more normal conditions. Nearly every room had a stove installed, after the Continental fashion, where the English idea of open fireplaces is abhorred.

The town appeared empty. Shops which were open appeared to have plenty of clothing, sweets and other foods available to coupon holders. I managed to buy some of the local stamps in the Post Office—their introduction has made philatelic history. First of all, bisects of the English two-penny stamps were used, and then both Jersey and Guernsey produced their own. Since coming back to India I have received two registered letters from Guernsey using these stamps only, so there is no question of their being legal tender.

Many R. A. F. raids had taken place on ships anchored or tied up in the White Rock, as the harbour is called, and several were sunk. One ammunition ship just disappeared, and a submarine refuelling ship was sunk with a submarine alongside her. This particular submarine put into the inner harbour, which is tiny, and left just before dawn next day. An hour later one bomb was dropped, scoring a direct hit in the centre of the small harbour and blowing out all the windows in the town. The language was unprintable! The R. A. F. had also done some very successful low-flying strafes on troops and working parties and caused a steady toll of casualties among the Germans.

The Island defences were simply fantastic. A railway had been built round most of the coast, and up to 20,000 slave labourers, mostly Poles, had been employed in the construction of underground strong points, general defensive systems, underground arsenals and various gun positions. In places the whole landscape has changed shape. The defences were so elaborate that shower-baths had been constructed underground, and many of the defence posts were beautifully furnished with carpets, chairs, pictures, etc., looted from private houses.

Enough ammunition was contained in underground arsenals at Jerbourg and St. Saviours areas to have kept the Germans going for many years. Some of the largest guns seen in Europe were camouflaged by complete houses built over them, with the gun muzzles protruding from windows. The whole of the large playground area at Elizabeth College was hollowed out underneath, and the top replaced to look exactly as it had been before. The German has left no doubt here about his complete thoroughness in all he does.

As I left I carried away the impression of the heartfelt thanks of the people for their deliverance; their abiding loyalty to the Duke of Normandy—the King; the vision of a very empty island with so very much to be done; the starvation thinness of the men, who wore worse than the women and children; and the rather lost feeling of a people who have just emerged once more into the light of a democratic world.

MILITARY TRAINING IN INDIA'S UNIVERSITIES

BY COLONEL DONALD PORTWAY, T.D., M.A., A.M. INST. C.E.

FACILITIES for Military training are now provided in many of the Colleges of India's eighteen Universities in their University Officers Training Corps. The degree of enthusiasm for the work varies a good deal, as is only to be expected. Their main purpose is to produce a steady flow of officers for India's fighting services, but statistics would bear out that the percentage of cadets who make any genuine effort to join one or other branch of India's services is regrettably small. It is also true that those who do interest themselves in obtaining commissions shew in general a marked predilection for the less combatant branches.

It is, of course, abundantly true that much painstaking work is put into the training both by officers and cadets, and that it is far from easy to arrange courses that embrace the more interesting parts of military science—or indeed of leadership training—when there is a complete absence of any previous basic training by the cadets in any of India's high schools. But the fact remains that little has been done in the U. O. T. C. to evolve any sound doctrine of officer training or to inculcate into the educated young Indian any affection for the profession of arms. Although the syllabus of the instruction includes reasonably attractive elements such as field-craft, map-reading and minor tactics, it is regrettably true that, possibly by reason of the paucity of trained instructors, much of the training boils down to rather slovenly drill movements on the parade ground.

Certainly the bulk of the cadets seem to show little real interest in the work, so that the whole trend of the training is to cause a degree of dislike for military activity in general and for the military profession in particular. Indeed it can hardly be doubted that if some inducement (let us not call it a bribe) were not offered the cadets who pass one or both Certificate A & B, in the form of some alleviation of degree requirements—slight in the Scientific faculties but very appreciable on the Arts side—the number of participants would be markedly less and their interest even more Laodicean.

The general trend of Indian University education has always been to follow British practice, but it is regrettably but undeniably true that India has imitated much that is bad in British education and omitted many of the more desirable features. Let us see, therefore, what British practice in University Military training amounted to previous to 1939. In Britain as in India membership of the Senior division of the O. T. C., as it was then termed, was completely voluntary, but in Britain—unlike in India—there was no sort of academic inducement for membership in any shape or form. Such a feature would indeed be quite unthinkable in any British University. The University Contingents had certain establishments, but as membership—except in a few exceptionally popular units such as horsed cavalry—never equalled the establishment, this matter of getting admission rarely arose. The percentage of students belonging to the O. T. C. varied from about 10 to 20 per cent. of the total student strength.

Where the British Contingents had the advantage over their Indian opposite numbers was in the existence of a hard core of cadets who had already

undergone a considerable degree of basic military training in the Junior Contingents of the O. T. C. or, in the case of boys from smaller schools, in the cadet Corps. Most of these recruits to the University Contingents had already passed their Certificate A at school. This certificate was intended to represent a standard of training indicating an ability to lead an Infantry Section, whereas in the University Contingent, where the final examination was called Certificate B, the aim of the training was to bring the undergraduate up to a standard necessary to lead a platoon in one arm of the service. In many of the Contingents the Infantry arm was by no means the largest.

Thus one of the larger Universities would have a squadron of Cavalry (usually only mechanised a year or so before 1939), a battery of 18 pounders, an Artillery Survey Battery, a Field Company of Engineers, a composite Signal Company, one or more Infantry Companies, an Ordnance unit (now R.E.M.E.) and a Field Ambulance. Students were encouraged to join the arm for which their academic training rendered them most suitable, and the unit commander in the various arms was often one of the teaching staff in the appropriate faculty. Thus the officer commanding the Artillery Survey unit might be a lecturer in the faculty of Geography, the Junior Officers of the battery being young B. As or Senior undergraduates who had shewn special keenness. The Civil Engineering faculty was naturally the happy hunting ground for the Field Company, Mechanical Engineers going into the Ordnance Unit. Signal personnel came to a large extent from the Physics faculty. The less technical arms naturally tended to regard the arts faculties as their main source of strength, but there was nothing to prevent a keen arts undergraduate from joining a technical unit or *vice versa*. The average student joined in his first year and passed his Certificate B before he left the Varsity, but as there was no sort of compulsion the wastage was considerable. Certificate B was intended to give its possessor an immediate commission on the outbreak of war, and this intention was duly honoured in 1939, when holders of Certificate B, if of not too ripe a vintage, were sent to O. C. T. U. training as officers and not as cadets.

In general, and bearing in mind the completely voluntary nature of the service given, the scheme worked well. Cadets naturally varied a good deal in keenness and efficiency, but in a good contingent the standard attained was relatively high. It was perhaps too much to expect that the cadet on leaving the contingent with his certificate B should be really up to the standard required of a junior officer, but he was at least as efficient as the moiety of subaltern officers in the Territorial Army.

Side by side with the Officers Training Corps there existed at the larger Universities the University Air Squadron. This was a *corps d'elite*, small in numbers but large in prestige. Candidates for admission were vastly in excess of establishment, and very rigid selection was applied in respect of membership. In fact, modern selection methods as used in the Army to-day were nearly approached in the panels of officers and graduates that investigated the claims of candidates for membership at the beginning of each academic year. The Air Squadron was less "military" than the O. T. C., no uniforms being supplied and no military obligations being assumed. The squadron comprised a very "chummy" atmosphere as the quite commodious Headquarters served as a club as well as a place for training. It was indeed one of the most exclusive clubs in the University. No insistence on service on mobilisation was made, as it was rightly taken for granted that members would be at the disposal of their country in her hour of need. Indeed, as the Air Squadron was only para-military it was quite possible to belong to the O. T. C. as well, though such a combination was very unusual owing to the commitments involved.

The Air Squadron had its own aircraft on the nearest aerodrome to their Headquarters and all members were taught to fly, as well as being instructed in the theory of flight, rigging, signals and other technical and semi-technical subjects. The competitive nature of admission into the Air Squadron rendered any undesirable rivalry between O. T. C. and Air Squadron quite unlikely, as it was appreciated on all sides that the army was more concerned with numbers and the Air Force with quality in its war-time requirements.

Now let us turn to India where, as already seen, there exists a University O. T. C. modelled on British lines but handicapped by the complete lack of previous military training by any of its members. Here again we have two certificates of competence, but the object of each certificate is merely laid down as a test of leadership and ability to command. The type of command, this is envisaged, seems nowhere to be stated for either certificate, so that the training staff have no real target at which to aim. Apart from one or two units that attempt some field engineering, the training is confined to the Infantry arm and that without any specialist weapons such as 3-inch mortars or even 2-inch mortars. No anti-tank training is included. Training equipment seems to be severely limited, and this alone renders it difficult to make the work attempted realistic and interesting.

Side by side with the U. O. T. C. there has now been formed the Indian Air Training Corps. This was formed in 1943, and it is desired to have units of the Corps at all Universities. Its duties are laid down as the inculcation of air-mindedness and the recruitment of officers as pilots in the Royal Indian Air Force. Unlike the British University Air Squadrons, no effort is made to teach its members to fly, but in all other respects the same type of training is carried out and a good deal of useful preliminary work is undertaken. In striking contrast to the U. O. T. C., its aims are laid down clearly and without ambiguity and its objectives are clearly stated. Although a good deal of technical work is attempted, its prime object is the inculcation of leadership and the spirit of service. Alertness, quick-thinking and physical well being are the qualities above all stressed as being basic to the standard required in the members of the R. I. A. F. The actual subjects taught include small arms training and a number of technical and semi-technical subjects such as Navigation, Meteorology, the principles of flight and the Internal Combustion Engine, all subjects of dynamic interest to young men of promise. Visits to air-fields are of course frequent. It is quite evident that the Indian Air Corps is based on far sounder and surer foundations than the U. O. T. C., though it is too early as yet to measure the degree of its success in terms of successful applications for commissions in the R. I. A. F. as Pilot Officers.

We have long passed the stage when Inter-Service rivalries can be allowed beyond a certain healthy stage, but is it not time that the Indian Army put its house in order in respect of military training in India's Universities? It must be appreciated that a more realistic policy is necessary if the army is to have its fair share of the best of India's young men, at least as far as the Universities are concerned. Is it not likely that in its present setting they will come to regard soldiering as a kind of bow-and-arrow affair and one offering very few attractions in comparison with air training? It is difficult to picture a keen youngster choosing the antiquated training practised in the U. O. T. C. when he has available the more varied and modern training of the A. T. C. It is obviously to the common interest that these two organisations should present the student with two complementary facets of India's military possibilities, and it is suggested that a measure of fusion between these two organizations might well

be attempted. A course covering three years is the basis requirement, and in the first year a common basis for the training should be possible covering small arms, musketry and general military subjects. In the second year some divergencies would be necessary, with a common basis in such subjects as Signals, hygiene and the theory of the Internal Combustion engine. In the third year the work would be entirely specialised and appropriate to the arm and branch of one or other of the two Services. Throughout there would run the strong leadership bias which is already so marked a feature in the Air Training scheme ever since its inception.

The example of the University Air Squadrons in Britain might well be followed in their emphasis on quality rather than quantity. The Combined Training Corps in the University would then become one of its most desirable features and its cadets would regard their membership with pride. Outside organizations would soon know whither to turn for their leaders in future employment and the Indian Army and the R. I. A. F. would both find the organization of the utmost value. Equipment should present no difficulty now that the war is over—there must be an immense surplus of modern equipment of all types now available. Much will depend on the skill and enthusiasm of the instructors, but the principle of quality rather than quantity is calculated to attract the best.

If it is too much to expect that the Army and Air Force in India should run a common training organization, the Army can at least follow the A. T. C. in its insistence on leadership as a subject of basic importance. No one would pretend that leadership is a subject suited to class-room instruction, but what is crystal-clear is that leadership can be inculcated by suitable training and that a well-run organization on O. T. C. lines is the place where it can best be carried out. In a University we have—or should have—the first essential of leadership, which is intelligence, but this must be harnessed to such qualities as energy, loyalty and determination. Such personality characteristics are definitely products of training. What is essential is that such qualities should be fostered by imaginative men who are themselves leaders, and here is the foremost problem of India's training corps, whether army or air. There can be little doubt that the right type of officer, whether in the permanent cadre or from the University staff, has not been chosen with sufficient care. It is not too much to say that this is a subject that must be tackled with vigour not only in University military training, but in the country at large. There are far too many careerists about—men who are lacking in the spirit of service and who stress self-advancement to a degree that leads them to sacrifice their principles in achieving this advancement.

It should be possible to follow more closely in the steps of British Universities in harnessing the technical training in the various Colleges to U. O. T. C. work. Thus in the University of Bombay the Engineering College at Poona could well sponsor a field company of the Indian Engineers (with the Royal Bombay Sappers and Miners almost next door and available to help) as well as an I. E. M. E. unit. There would be plenty of students still available for R. I. A. T. C. purposes as well. The medical schools could well provide training in field ambulance work, and in general it should be possible with the equipment available to do much to make India's undergraduates appreciate the interests and attractions of the profession of arms, whether on land or in the air.

But with all the equipment in the world nothing effective can be done unless the officers who are to carry out the training are adequate for the work in hand. It all depends on their personal prestige and their degree of efficiency. Leadership training is quite impossible without the necessary personality. For

leadership begets leadership and the qualities that enable one man to become a leader enable him to make leaders out of others. If the Indian Universities get the right men for their military training much may be done. Without this no expenditure of time and money will secure satisfactory results.

The success of an organization such as a training unit is bound up with the corporate life and corporate spirit that exists between teacher and student or between officer and man. India wants the man with an enquiring mind who won't take things for granted. Kipling summed up this line of thought with his usual incisive style and cogency:

I kept six honest serving men
They taught me all I knew
Their names are what and why and when
And how and where and who.

For it is this spirit of healthy curiosity that the University training corps must attempt to inculcate if it is to do its proper job, and its proper job is to rope in the young Indian of the right type in order that India's fighting services may have the leaders that are so vital in her many future problems.

A QUIET DAY IN NEW GUINEA—JANUARY, 1944

BY LIEUTENANT-COLONEL C. E. P. CHAUVEL

CORAL cliffs—even when covered with long grass—don't provide the best of sleeping places, and I woke up that morning feeling very stiff. Tea, porridge, bully and biscuits revived me a little. Next came the still somewhat unfamiliar task of loading up a pack with all my worldly belongings, preparatory to turning myself into a beast of burden. (I was still carrying on my back a good deal more than the average Australian soldier did, being reluctant to discard many things that I had for so long considered essential.)

The battalion moved off with two companies forward, the right company astride the coastal track; the left company had the heavy going on the green terraces above. A troop of Matilda tanks moved with the battalion, and the supporting 25 pounders leap-frogged by batteries behind us.

The country was quite unlike anything we had been taught to expect in New Guinea. True, there was jungle there, but it was mostly well back from the coast; only occasional belts of trees accompanied the rivers and streams on their way down from the Finnissterre Ranges. The sea was on our right; a few peaks of New Britain were just visible above the intense blue of the Vitiaz Strait. The Americans were busy over there at Arawe at Cape Gloucester.

Between us and the sea were coral cliffs and reefs, with here and there strips of very white beach,—essential links in the supply line for the advance. The whole coast-line must have been of coral formation for, after a very narrow flat strip of fertile black soil, the ground rose sharply in a series of clear-cut coral terraces. These in turn gave place to bare, grassy foothills while behind them rose the dense peaks of the Finnissterres.

It was well known that several thousands of hungry Japs were still above us in these mountains. Chased out of Lae, Finnschafen and Sattelberg, they were trying to make their way back by inland jungle tracks to their next supply base at Nambariwa. It was our object to get there first.

No text-book flank guards were possible in the circumstances, and once I asked the C. O. what would happen if the Japs came down from the hills on to our flank. He was a dour man, not accustomed to long speeches, and there was a prayerful look in his eyes as he answered simply—"I only wish they would!" I soon learned to appreciate his point. After months of "jungle-bashing" these men would have given a lot to meet the Japs in the open.

In this part of New Guinea wherever there was no jungle there was *kunai* grass. It is a coarse grass, varying from two feet to six feet high, that grows equally well on the coastal flat and the coral terraces and in jungle clearings. It has the property of retaining heat, and walking for hours through the stuffiness of high *kunai* is one of the most exhausting experiences I know.

On starting off that morning I attached myself to the Mortar officer. He had the not inappropriate name of Shrapnel, and was a blood-thirsty young man who strongly resented the way the artillery were given all the best targets. His men were laden like Simla hill coolies; they had no mules or jeeps to carry the mortars and bombs—just themselves. Shrapnie always hoped to lighten the

load of bombs during the day and at the same time gladden the hearts of his men; but for several days now he had been out of luck.

We were stepping along the coastal track, keeping close to the commander of the leading company, and everything was quiet. Very soon we came to one of the many narrow ravines running down to the sea, the passage of which had been the chief headache of the engineers and tanks ever since leaving Finnschafen. Being only an observer, and free to wander where I would, I stayed with the forward tanks, interested to see how they would solve the problem.

In this particular instance the narrow native track avoided the ravine by dropping sharply down the cliff to the beach; thence climbing by a more gentle slope on the far side. To make a reasonable track down on the near side was perhaps a one-hour job for a bull-dozer, but some tanks had to be kept up with the infantry if possible. A trial was therefore made with one Matilda, easing it down the steep slope with another tank taking the strain on a towing hawser. As it was gingerly lowered, all eyes were on the doubtful right side of the track which overhung the cliff. All went well, and a second tank was lowered. No other "anchor" being available on the top of the cliff the third tank had to wait for the improvement of the track by the bull-dozer.

Such methods of improvisation were commonplace to keep the tanks up with the infantry. One of the Squadron Commanders had a pet scheme for slinging tanks across ravines on a sort of super-flying-fox. It was perhaps fortunate that he was not allowed to try it out.

This particular Tank Battalion had scored what I believe was the first real success for British armour in jungle warfare. In the fighting for Sattelberg in late 1943 they had proved that tanks with close infantry co-operation can be decisive in the densest jungle. It is of interest that for that operation the Australians had selected Matildas in preference to American tanks. They maintained, despite the subsequent success of American tanks in Burma, that for really thick jungle English tanks were superior.

Having watched the tanks through their difficulties I took a lift with them to catch up the leading company. We were just in time to watch the first excitement of the day—a short but spectacular man-hunt. One of the leading platoons had run into a party of five Japs in high *kunai* grass about five hundred yards inland from the track. Though they were higher than us the general slope of the ground gave us a grand-stand view, as the Australians hunted them through the long grass.

We could see the head of one Jap trying to edge his way up the hill with five enthusiastic pursuers. They were quartering the area in which he had last shown up; blinded by the high grass, they seemed to be hunting by sound and instinct, and reminded me oddly of a beagle pack hunting in thick undergrowth. It was a queer thrill to be able to watch the movements of both hunter and quarry, while knowing that they got only occasional glimpses of each other.

As we watched the dark blob that was the Jap, it disappeared under the shelter of a small black rock. Immediately the "hounds" were at fault, confirming my impression that they were hunting mostly by sound. It seemed as if the Son of Heaven had come to a point where he had either to make a dash for it across an open stretch, or risk doubling back through the high grass. He chose the open. For one second I saw him through my glasses, upright and black against the light coloured grass. Then he fell; and the crack of an Owen gun could be faintly heard over the cat-calls and laughs of the men around me.

And as he went, so went the others; all but one, who, having thrown away his rifle and equipment, found an escape route in a nearby ravine. These were the first live Japanese I had seen.

Shortly afterwards, I saw my first Jap prisoner. He was very dirty and ragged and looked sick. A pair of round steel-framed spectacles gave him a slightly studious appearance. Apparently his captor had taken a snapshot at the Jap on first sight, but his Owen gun had misfired. Then it occurred to him that it might be a better joke to take the dirty little specimen prisoner. Such are the odd workings of an old soldier's mind! I heard the next day that Bill's enjoyment of a joke had been a minor inspiration. This particular Jap was educated and intelligent, and the information that he gave brought the battalion a note of thanks from the Divisional "I" staff.

Lunch time found us crossing a small river. The water in many of these fast-flowing rivers was very clear, and often had a lovely whitish-blue tinge from some mineral deposits in the mountains. It looked so pure that it was difficult to persuade the men that it was unsafe to drink without chlorination. I sat down with some of the men of the leading company to eat my Field Operational Ration; tea was being made in a billy improvised out of a ration tin.

Somehow, the conversation got on to the subject of the military ability of the Japanese. Several of my companions had been in Tobruk, and nearly all of them had been at Alamein; consequently they knew the German soldier at his best. Now they had been fighting in New Guinea more or less continuously for four months; and they had defeated the Japanese in the jungles above Finnschafen as decisively as they had defeated the Germans on the north flank of the greatest desert battle. I was deeply interested to hear these men comparing the military virtues of our two main enemies. (In reproducing my recollections of this and other conversations, I must necessarily leave out a good deal of the colourful, but unprintable, language that comes as readily to the Australian soldier as to the Tommy, but is less restrained in the presence of officers.)

"Before we came up here," said a lance-corporal, "We were told a lot of rot about what a wonderful soldier the Jap is. Damned if I think he's much better than the Eyetie." This view only got limited support, but several went on to tell stories of actions where the Jap had lost heavily through stupidity.

"Do you remember that day they attacked us on the Bumi? Somebody blew a trumpet, then they all rushed out, jammed up together and shouting, with the officer in front waving his sword! Three times this happened, and each time we got stuck into them with the Brens. Then some silly . . . shot the trumpeter; you should have heard our platoon commander tear a strip off him—fair rovable he was! After that we could see the officer trying to collect what was left of them for another attack. But the Nips had had a bellyful. In the end, this officer did a one-man attack, waving his sword. Our chaps sat for him till he was fairly close and then let him have it. And was there a wild rush to souvenir his sword!"

"Yes, that sort of things happened often enough," said a gunner from the F. O. O. party. "I was told about it by a chap who was up here in the early days, and there was a similar incident when I was at Katika in the early part of the Finnschafen fighting."

"Well, the Nip isn't too bad when he's got himself into a nice foxhole. Takes a bit of getting him out."

"You're right there, but he'll often go if you start getting round the back of him."

"Yes," said the lance-corporal, as he got up to put on his pack, "he may be quite good in a hole, but I don't reckon he's any better than the Eyetie when he's outside the hole. You should have heard the little . . . 's screams that day when "B" Company got stuck into them with the bayonet."

It was time to move off again, and we struggled into our gear; packs seemed a little lighter after our rest, but this feeling, unfortunately, never seemed to last for long.

The march was uneventful for several hours. Only an occasional shot or burst of Bren fire from "B" Company on the left, who were slowly dropping behind in the heavy going, indicated that there were some enemy stragglers about. Those green terraces looked deceptively flat, but under the long *kunai* grass were the sharp and biting irregularities peculiar to coral formations. A step in the thick grass might equally end on a razor edge of coral rock, or in a hole several feet deep. A day on the coral terraces meant many sprains and cuts that were slow to heal.

On the flat the going had been comparatively easy for "A" Company. But it was very hot. The sea breeze had dropped about eleven, leaving a sultry heat reminiscent of the plains of Northern India during a break in the monsoon. For several days there had been little contact with the enemy, and the men were itching to get "stuck into something."

Late in the afternoon "something" obligingly turned up, in the shape of a party of about thirty Japs. They were trying to escape into the hills directly across the front of "B" Company, which was by now several hundred yards behind us. The Japs were in dead ground to "B" but in clear view of "A" Company on the track, at about 1,200 yards' range.

Just for a moment this bunch of old soldiers relaxed, and enjoyed themselves like a lot of schoolboys at a rabbit drive. Everything opened up: Vickers and Brens, rifles and mortars. Men were standing shoulder to shoulder along the high grass that bordered the track, those with Owen guns borrowing a rifle, "just to have a crack;" friends were laughing and observing each others' fire. One unaimed shot in our direction would have sensibly reduced the volume of our fire, but that one shot never came. (Instead, as we found out later, the majority of the Japs threw away their weapons; twenty-five rifles were later picked up by "B" Company.)

Small brown figures could be seen working their way up the hill from rock to rock. The range was lengthening and, though a good time was had by all, it was doubtful if there was much material effect. Then the Colonel, who had been watching quietly for a few minutes, ordered "A" to cease fire and wirelessed to the left Company to speed up their advance. I got the impression that he had mentally written off a certain amount of ammunition against "light relief for the troops," and allowed the entertainment to proceed just so far and no further.

The objective for the day's march was Sialum, a native village on a lagoon which was marked on the map as an anchorage for small vessels. The slow progress of "B" Company, however, decided the Colonel to halt for the night short of the village, and a perimeter was laid out at the Southern end of the lagoon, covering suitable landing beaches for the supply barges. No contact had been made during the day with the enemy's rearguard, but shortly after halting a few stray shots were fired at the forward posts on the track.

Preparations for the night included a good deal more than digging. It rained most nights, and every man carried with him the wherewithal to erect some sort of bivouac (known to the Australian soldier as a "doover"—derivation unknown) whenever the close presence of the enemy did not forbid. Further, on account of the danger of scrub typhus all ranks were supposed to build themselves a jungle bed off the ground whenever circumstances permitted.

Battalion Headquarters was located amongst coconut-palms at the edge of a pleasant beach, and soon all those who weren't otherwise employed were bathing. One of the few consolations of this part of New Guinea was the very good bathing to be had, and the Australians, being addicted that way, were not slow to take advantage of it. The comparatively open country gave some security against surprise or snipers, and on many occasions I saw men bathing a few hundred yards behind the foremost troops.

Our bathing party this evening, however, was not allowed to go entirely undisturbed. From the terraces above Sialum village a Jap 81 mm. mortar opened up in our general direction, followed shortly by a "wood-pecker" (medium machine-gun.) Those of us on the beach took cover; but the attitude of those bathing reminded me very much of Londoners in the streets during daylight raids towards the end of 1940. Perhaps it was a blind faith in their own artillery. If so, they were not disappointed, for the mortar had only fired five rounds, all of which landed short on the cliffs, before it was put out of action. This seemed to discourage the wood-pecker, which was heard no more.

It was getting late now, and the L. C. V. bringing the rations was overdue. In a short time there would be insufficient light for them to find the gap in the reef which was the only entrance to the lagoon. Supply of the forward troops on the move was done by landing barges or "ducks" wherever beaches were available; the alternative being a native porter carry from jeep-head. As the ration barge must arrive before dark it was inevitable that it frequently had to set out before the leading troops had reported the landing beach clear. On arrival the barge would remain well out until recognition signals were exchanged with the shore.

To-night's L. C. V. arrived, none too soon as the light was failing, and nosed its way cautiously through the unmarked entrance to the lagoon. There was an unhappy moment when we thought they were heading for the gap end of the lagoon, despite frantic signalling; but gradually they came round and found their way through several minor reefs to the selected beach. Forgetting for the moment that the Pacific was the birth-place of the modern landing-craft, and that they had since multiplied over the face of that ocean like the rabbits in Australia, I was intrigued with the incongruity of this ugly craft—a strictly utilitarian product of war—in its Hollywood setting of palm-trees, white sand and coral-reefs, and a lagoon as blue as that of any South Sea Island technicolor.

Our evening meal was produced by the Adjutant's batman. The small mess—C. O., 2nd-in-Command, Adjutant, and myself, the visitor—fed surprisingly well on the ordinary army ration. Afterwards I sat on the beach, taking advantage of a gentle sea breeze, talking to the 2nd-in-Command. There was little else to do but talk, until the night air cooled sufficiently to make sleep possible. My companion was a North Queenslander; he had been in the show from the beginning and had collected a D. S. O. at Alamein.

"I can't help thinking," he said, "that you chaps are rather wasting your time being attached to our crowd. If you were sent out here to get experience in jungle warfare then you're two or three months too late. We've got

through the jungle now and it's all open coast-line for some way ahead. Also the Japs here have had it; and they're running faster than we can chase them. You probably won't see more than the odd party like we did to-day. Our chaps have pretty well had it too; there's twenty a day going out with fever over 103°—the Doc doesn't let 'em go much before that—and they're all tired as hell.

"I wish you'd seen the boys three months ago, when we landed at Scarlet Beach and pushed through to Finnschafen. You'd have seen plenty of jungle-bashing there. And our chaps were right on top of the Nips all the time."

I mentioned the conversation I had listened to at lunch-time about the comparative fighting abilities of the German and the Jap. "I think you might have heard it expressed differently two months ago," was his comment. "In the last few weeks the Nips' morale has bust so badly on this front that our chaps have got a bit contemptuous of them. But the fellows you talked to had the guts of it all right. Our experience is that the Jap is not much good in an attack—nothing like as good as the Jerry; but in defence he is as stubborn as any Hun—and he sites his defences particularly well too."

I ventured tentatively a question on the discipline of the modern Australian soldier. "You couldn't ask for anything better, now," he said. "It wasn't too hot when we went off to the Middle East, but we learnt it the hard way there. You couldn't soldier in the Eighth Army without learning discipline. While you're with us you won't perhaps collect as many salutes as you might in India, and the men will call you "Major" instead of "sir"; but I don't think you'll see much else to complain of." (I didn't!)

The night was cooler now, and my bed of driftwood and palm fronds looked comfortable. This appearance turned out to be deceptive, but I was tired enough to sleep anywhere. I dropped off to sleep with the idea that if I was wasting my time in New Guinea, I was at least enjoying it, and I was in very pleasant company. And in any case there was nothing I could do about it.

NEW DESIGN FOR I. O. M. STAR.

The Military Division of the Indian Order of Merit was reduced from two classes (1st and 2nd) to one class as from February 15, 1944. A bar was introduced for each approved act of gallantry which would have entitled an individual to the Order had he not already been admitted to it.

H. M. The King has now been pleased to approve a new design of the I.O.M. Star which, with certain improvements, is based on that of the old Indian Order of Merit, 1st Class. It is an eight-pointed silver star, one and seven-tenths inches in diameter. In the centre are two crossed swords around which are inscribed the words: "Reward for Gallantry" on a circular crown of dark blue enamel. The latter is surrounded by a laurel wreath surmounted by a crown. The laurel wreath, including the crown and the design in the centre, are of gold.

The Star is worn on the left breast pendant from a dark blue ribbon with red edges. For every bar awarded, a silver rose is added to the ribbon when worn alone.

Arrangements are being made to issue the new Star to all recipients since February 15, 1944.

THE PRODUCTION AND PROTECTION OF OIL

BY LIEUT.-COLONEL G. T. WHEELER.

I saw the Burma oilfields during a hurried retreat from Rangoon to India in 1942. After I passed they were destroyed, but only just before the Japanese army over-ran them.

The oil in Burma lies in a sand strata some four thousand feet below ground level, and is brought to the surface by pipes which are drilled down at intervals of a few hundred yards at most. The bottom end of the pipe can only collect the oil from a relatively small area, because the sand soon becomes a dry mass which prevents other oil from getting to it. Hence it is necessary to drill at frequent intervals, and on the surface the oilfields look like a forest of wooden derricks.

The destruction of the fields consisted of blocking the drilled holes—which was fairly easy; destroying the electric power station and all other essential machinery, and, most important of all, removing all sources of information about the oilfield. It takes years of drilling and survey to discover the shape of the underground oilfield. Provided the Japanese were not presented with this hard-earned knowledge, it might well take them years to get any more oil out of the field.

There was at least one driller, a white man, who had no desire to leave. He had married a Burmese woman and wanted to stay with her. The question of his removal was the only one that was brought to the army for solution. The other problems were all technical, and could be solved by the Burma Oil Company. That is about all I know of the Burma Oilfields, except that the crude oil is piped down to Syriam, near Rangoon, where it is refined. When I last saw Syriam it was the origin of a black cloud some three miles high. That was on March 7, 1942, the day after it was set on fire.

Burma Oil Company holds a very large number of shares in the Anglo-Iranian Oil Company. Thither we will go.

The main Anglo-Iranian Oilfields are in South Persia. There are other fields in the centre and west, but these have not got the potential output of those in the south. They are also much nearer to Russia, whatever that may mean. I have never seen the central or western fields and know practically nothing about them, so, contrary to general practice, will regard that as a reason for saying nothing about them. I spent six ghastly months defending the southern fields, in which time I learnt a lot about them. A rather startling omission was that I never learnt who I was defending them against.

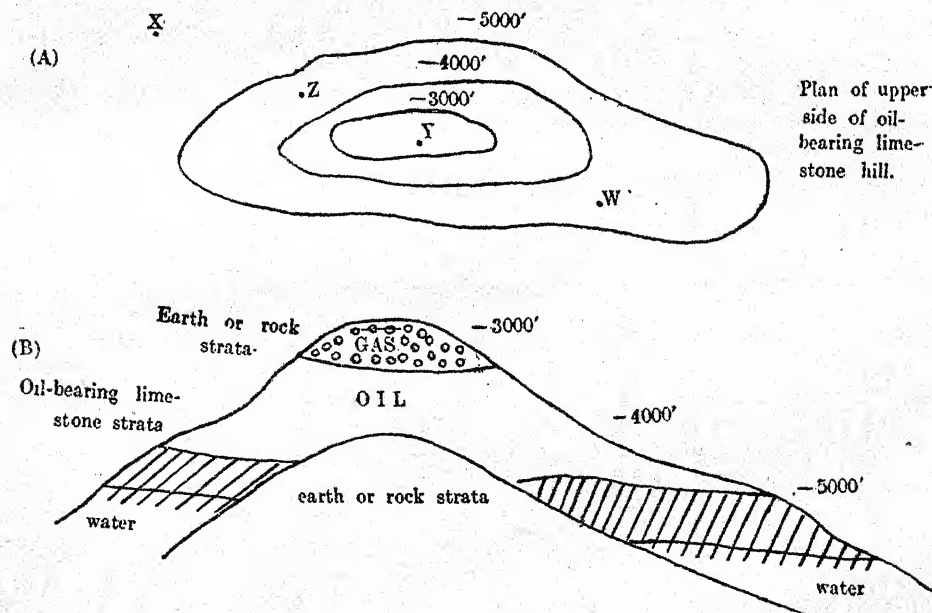
The attached map shows where and how the oilfields lie. The "burra sahibs" live and work in Abadan, which is a modern, air-conditioned town with a European population numbered in thousands. It contains the refinery as well as the head administrative offices. The refinery has worked to capacity throughout the war, including every possible expansion in its size.

The "burra sahibs" of the Southern fields live in Masjid-i-Suleiman, which is always called "M. I. S." or "Fields." It is the site of the original wells and some oil is still produced there. It is a straggly town spread about low bare hills and valleys, is some three miles long by one mile wide. The main

offices are air-conditioned, and so is one, or possibly two rooms in each European's house. Otherwise the standard of civilisation is little higher than that of the normal Indian cantonment. The European population numbers something over a hundred and fifty.

Compared to Burma, the most noticeable omission in M. I. S. is any form of derrick. It is the centre of an oilfield, so, by Burma standards, should be a forest of derricks. The reason is twofold; first, that there is no timber of any sort available locally, so drilling is done from a steel derrick, which is removed for use elsewhere when the well is drilled. Secondly, the oil in Iraq lies in a form of sponge-like limestone, not in sand as in Burma. This is a very important difference, because one well can draw oil from a very wide area. The oil has free passage through the pores of the rock and there is nothing to clog the bottom of the pipe. Theoretically the whole oilfield could be drained by a single well. In practice it cannot because the rock which holds the oil is invariably in the shape of a hill.

The two diagrams below are the plan (A) and Section (B) of a simple form of oilfield:—



On diagram (A) above, if one drills at X nothing will be found, as the drill will miss the oil. If one drills at Y gas will be struck before oil, which tells the driller that he has got into the central area of the field. A drill at Z strikes oil. The pressure of the gas forces the oil up and Z becomes a working well. Now, as has been said, theoretically all the oil could be drawn up from "Z" well; but in practice the water, which always lies below the oil, would rise before the oil had time to adjust its level and Z would start producing water. To prevent this another well has to be drilled at W in order to balance the oil level.

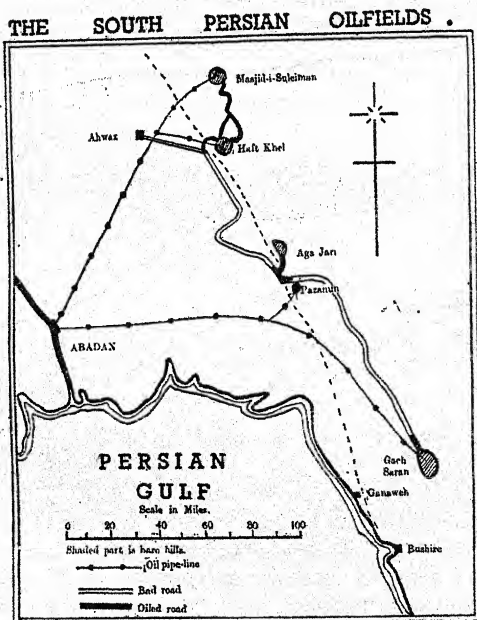
No oilfield is as simple in shape as that depicted, so there are in fact a fairly large number of wells in the M. I. S. fields. Many are useless, having been drilled before the shape of the field had been discovered. (They were, of course, the means by which the shape was discovered). Some are deliberately drilled into the water in order to control the water level. The rest are working wells which are opened or closed as required to keep the oil level balanced.

Drilling began in M. I. S. at the beginning of this century. Several fortunes were lost before they struck oil. The original well lies in the centre of M. I. S. and is an object of some veneration. The first oil producing well lies outside the town, and to this day all who visit it, drunk or sober, lift their hats. It came into production just in time to give the Navy the oil it needed to wage the last war.

Before leaving M. I. S. we will see the oil on its way to Abadan and then call on the "Fields Manager."

The pressure of the gas is terrific. It blows the oil three or more thousand feet up the pipe and still gives it a pressure of 300 to 2,000 lbs. per square inch when it reaches the surface. This surplus pressure is used to blow it still higher to the top of a convenient high hill. At the top of the selected hill is an installation called a "Stabiliser." The purpose of the Stabiliser is to take off all the remaining pressure except for 10 lbs. per square inch. The last 10 lbs. of pressure is used to blow the oil downhill into Abadan, over a hundred miles away.

It is the easiest oil in the world to get. It blows itself into Abadan. The only work required is to watch the pressure on each well to see that the oilfield level is kept balanced; and to take off the excess power after the oil has reached the surface. In most other parts of the world the oil will not even reach the surface without being force-pumped up.



The "Fields" Manager was a Sapper officer in the last war. Being honest he is more popular with his juniors than his seniors, but everyone likes him. He knows the whole area really well and is always interesting to talk to.

"You want the other half of the Indian's quarters for your troops, my approval to reducing the garrison of Pazanun, and the false teeth to be mended at the Company's expense. Can you stay the night with us?" he said, after a nod which meant "sit down."

"Yes. No. Yes. Sorry, no". I said with a huge mental effort and sat down.

The "defending troops" were entirely dependent on the Company's generosity for accommodation. In M. I. S. the quarters built for the Indian employees of the Company were ideal barracks. So far we only had been allowed half of them, and half a squadron of our's was living in tents. There was always the chance of being allowed to occupy the whole of them.

Pazanun is the hottest place in the whole oilfield area, and he guessed, rightly, that I would want to take troops away from there before the summer. That time had not yet come, in my opinion. The false teeth belonged to the wife of a Company official and had been broken in an accident involving one of our trucks. A claim for damages was in the air. The invitation to stay the night was always given and always welcome; but this time it was impossible.

He was very busy, so time was not wasted over these problems. My main problem, however, was the training of the local "Home Guard". The history of the Home Guard in the oilfields is not a happy one. Soon after Persia was "liberated" the local military authorities thought it would be fashionable to form a Home Guard similar to that in England. The war was still far away and the rather vague conditions of enlistment and training were not greeted with any enthusiasm by the hard-worked and realistic employees of the Company. They were as keen as the next man to help win the war, but saw no point in learning to fight on Home Guard lines. They agreed to join, and left it at that. So did the military authorities.

In the summer of 1942, when the Germans were advancing through the Caucasus the Company's personnel were faced with the prospect of demolishing the fields and Refinery. Rather naturally the potential "last-ditchers" asked for uniform. If they were to be captured they did not want to be shot as *saboteurs*. This put the Home Guard scheme in the foreground and many joined to the extent of receiving a uniform. In the late autumn of 1942 the Russians drove the Germans back and the Home Guard uniforms were forgotten. In the autumn of 1943, for some unknown reason, the higher military authorities issued orders that Home Guard training was to be encouraged at high pressure. I had hoped to be able to tell this to the Fields Manager at the Club bar, because I would sooner be thought drunk than mad. However it had to be done now, and I told him my orders. He looked at me in wide-eyed wonder and suggested I should see his deputy. He was a kindly, understanding man.

His deputy was a promoted driller; tall, well-built, and of great energy. He was admitted by others of his trade to be one of the best drillers in the world. Obviously there can be no Drilling Competition, to decide which of two men is the better driller, so this praise is based on long-term success. By some combination of sound, feel and sight the driller knows what is going on 5,000 or 10,000 feet below him, where his drill is forging its way down to oil. The good driller is he who never lets things go wrong. He leads an uneventful life. There are others who are called in when things have gone wrong and can instinctively suggest the right remedy. If they are always right they can be considered among the best drillers of the world. The Deputy Field Manager was one of these. If it is difficult to define a good driller, it is easy to describe a bad one. He arrived on the job in flushed and merry mood. Fitted on the wrong tool, drove it down too fast, broke it off and left it down there, bent the rig as he pulled up what remained and went home to blame it on his wife. That is bad drilling and we will return to it later.

The visit to the Deputy Field Manager produced agreement on the Home Guard problem. The men would be pleased to do any reasonable amount of firing on the Range. They would learn to use a Tommy gun with enthusiasm, and the Bren gun without protest. They would like British officers as instructors. All this was arranged, including days and times of parade, and it worked out according to plan in the weeks to come.

He was not happy about the general military lay-out, and rightly so. There were far too many cooks making the broth. There were military headquarters in Ahwaz, Teheran and Baghdad, all of which could be approached by any Company official with views on the situation. The Company had its own Defence representative—an ex-officer of the last war and now a civilian. There was a British Military Mission in Teheran, which dealt with the Persian Army authorities; and the Persian army had three considerable garrisons within the Oilfields area. He wondered, politely, where I came in as officer-in-charge Defence of Oilfields. I felt it would be wrong to admit that I often wondered too.

Fortunately he had not had any dealings with the Intelligence side of the job. Every possible Headquarters had its own Intelligence officer working in the area. They were all very enthusiastic, but were imbued with the reporter's craving for a "scoop". As a result one could hear almost anything from them if one listened long enough. Their particular toy was a party of Germans who were working in the mountains to the East. From the various Intelligence officers' reports their numbers varied between two and fifteen, their intentions between gold prospecting and wholesale massacre, their location between Germany and just outside the back door. I think there were five of them, and they caused no trouble, but a lot of "scoops". They walked in to surrender before the end of the war, which must have been a great disappointment to the many who owed so much to so few.

Let us move to Haft Khel, which is a fifty-mile drive by a good oil-sealed road. "*Haft*" means "seven" and "*Khel*" means "cairn". It is said that the area was originally farmed by a Persian of some wealth. One day a party of seven Arabs came to remove either his cattle or his wife. History is unsure which, and I personally don't see why it should not have been both, though, of course, I never saw the wife. Anyway he resented the project, shot the Arabs, buried them on top of a hill and built a cairn on top of each grave. The seven cairns are there to this day.

Haft Khel is typical of all the other Oilfield colonies. It is in full production and the best well alone produces more oil than the whole Burma oilfield did before the war. There are about twenty wells in production, though the number is varied continually. They serve three stabilisers, each of which throws away enough unwanted gas to run a city the size of Manchester. Gas is used to provide all electric light, water, heat and petrol that is required locally, yet there is still this huge surplus thrown into the air. It smells, but is not dangerous.

The European population consists of the local manager, drilling superintendent, production superintendent, garage superintendent, construction engineer, and instrument expert, together with some deputies and a few drillers. They total about twelve, and most are married with their wives present.

The dividing line between the drilling and production branches is the Stabiliser. The drillers have to get the oil to the Stabiliser, where the production men take it over and get it to Abadan. The construction engineer does roads and buildings. The instrument expert deals mostly with the multitude of oil pressure gauges, but his department will also mend a watch.

This population lives in remarkable amity considering their wide differences of pay, upbringing and choice of wives. The wife of a Company employee has an easy life in a hard climate. Her house is run on limitless supplies of gas and electricity and servants are plentiful. To ameliorate the climate, each house has one air-conditioned room. The social life is based on the Club which provides golf, tennis, a cooled swimming pool, a cinema three nights a week and a pretty hectic party once a week. Aspirin is invariably essential the next morning and this also is provided by the Club.

Haft Khel was the regimental headquarters of the defending regiment, so our officers usually out-numbered their twelve men. In spite of this their hospitality never failed. We were pressed to regard the Club as our own, and never was any officer allowed to dine in Mess on any big occasion. They were divided among the married households and given a civilised meal. Many hundreds of officers must have passed through the territory of the A. I. O. C. whether in the West, Centre or South of Persia, and all will bear memories of their unfailing hospitality.

The journey from Haft Khel to Aga Jari is about sixty miles by road. One's first impression is the awfulness of the road. It is not a road, it is just a stony interval between two areas of desert. I have never found anyone who could tell me why this was so. The Company is very rich and has limitless labour available. Yet they allow their motor transport to be shaken to pieces on really ghastly roads. With the one exception of the oil-sealed road from M. I. S. to Haft Khel there is not a road in the area which is really fit for cars.

Aga Jari (all three 'a's are long) is the latest field to be opened. Its size is still not known, and it is even possible that it joins the Pazanun field, but the experts think not. The place itself is very similar to Haft Khel, though the European population is over fifty. The excess population is due to the large number of drillers, who are there working at full pressure on more, and ever more, wells.

The congregation of a lot of drillers produces two specialists with rather queer names: the Toolpusher and the Kingfisher. The former is little more than an experienced driller whose task is to advise on, and produce, the best type of drill for the driller to use. The choice is based on the depth and type of rock or soil that has been reached. The Kingfisher is the immediate successor of the bad driller already described. Even a good driller, however, can break off his drill when conditions are adverse. It is then that the Kingfisher comes along with his special tools for retrieving the broken bit from the bottom of the well. It is called "fishing".

Before leaving drillers and their troubles it is right to mention fire. The worst that can happen to an oilfield is for one of the wells to get out of control and catch fire. It is a rare event in Europe or Asia, but more common in America. In fact, in America they have a few firms which specialise in putting out oilfield fires. When a fire starts there, they telephone one of these firms and go home to tea, as it were.

The most famous oilfield fire is that in Rumania at the end of the First Great War. It burnt for several years and, although officially it was put out, in fact it had burnt itself out by the end. A fire on one of the gas wells at Pazanun (which come later in this story) would be of this nature. It would be virtually impossible to extinguish until practically the whole field had burnt away.

In modern times the best-known fire is that which took place in the Arabian fields at the beginning of this Great War. The biggest of the American fire firms flew out a complete team to extinguish it. By the time they arrived the fire was under control. Local men had tunnelled underground and drawn off the oil below the point where it was burning.

The Americans use explosives in putting the fires out. They cover themselves and an explosive charge with asbestos and carry the charge as near to the origin of the flames as they can. They then explode the charge and hope to blow the fire out. The two brothers who are most famous at this method have only about half the normal complement of arms and legs between them, so flames are not the only things they have blown away.

* * * * *

From Aga Jari to Pazanun is only eleven miles. Pazanun (both 'a's are short this time) is remarkable in many ways. It is a tiny settlement tucked into a scorchingly hot valley. There are only four Europeans there and only five working wells. The only amenity is a tennis court. The feature of the place is the fact that the wells produce gas, not oil. The gas reaches the surface at a pressure of some thousands of feet per square inch, and is released into huge cylinders to settle into oil. The pipes which carry it to the cylinders are coated thickly with ice, in spite of the fact that they are exposed to one of the hottest suns in the world. The shade temperature might be around 130°F. This ice is due to the same principle that causes cold air to come out of a fully-inflated football bladder. Expanding gases are cold.

The oil which forms from the gas is very nearly petrol already, and is used to mix with normal crude oil in the production of high octane petrol. The Company are very proud of Pazanun's gas wells. I was rather frightened of them, I did not trust the tops not to blow off any minute. There is a deafening noise of very active gas at each well-head, and it sounds as if it was in a hurry to get some place.

From the military point of view Pazanun is on the edge of the troubled area. Between there and Gach Saran (first two 'a's short, last one long) the road passes through hills, in which live virile and impoverished tribesmen. They are comparable to Pathans, but slightly gentler. They loot rather than kill. But we will leave them for the moment, as they are of no importance compared with oil.

The southernmost field is at Gach Saran, which is believed to be one of the biggest fields in the world. It is higher than any other field in South Persia, so has a relatively good climate. It is spread over an area of some six miles, but the European population all live "in the same street". There are only four of them and the reason for this is interesting.

After the field was opened an ingenious instrument expert decided that it was both tiring and unnecessary to go miles from well to well reading the pressure of each. So he linked all the wells up with a central building and there, in one room, the pressure of every well is shown on the appropriate guage. What may be the largest oilfield in the world is played, like a gigantic organ, from a single room. The saving in skilled labour is apparently some eight men out of twelve.

When the expert American oil delegates visited Gach Saran they gazed with amazement at the room. "Wal, that's certainly one thing your instrument

makers have got over ours," said one of them, "and we always figure our instruments are well ahead of yours." His last remark was only too true.

"Look at the maker's name on the instruments," said the local Field Manager. The American looked, and laughed. Each instrument was "Made in U.S.A.", but they had been used in a way that no American had yet thought of.

This American oil delegation was touring British oilfields. The war was expending petrol at a dangerous rate for the American oilfields. So, in a friendly way, the Americans wanted to check up what resources we had in case their's went dry. Gach Saran was of peculiar interest to them because it was the southernmost field in Persia. After Persia the oil dips down under the Persian Gulf to rise again in Arabia, on the other side. In Arabia the Americans have already acquired concessions. The Americans knew that the Haft Khel field was bigger than M. I. S., that Gach Saran was bigger than Haft Khel and that there was quite a lot of space between Gach Saran and the Persian Gulf. The delegation asked about the possibility of this area holding any oil, and it is good to know that the answer satisfied them, for the final remark by the American was :

"Wal, I suppose I've got to believe that, because I can't prove it's wrong."

Personally I shall be very surprised if Persia ever runs short of oil.

I am not going to leave Gach Saran without mentioning Bill. When the Intelligence officers said that the tribes were rising and would shortly loot, burn and rape the population of Gach Saran, Bill put a loaded rifle in the corner of his bedroom and told his wife and daughter to go to sleep and the population not to "flap." The next day Bill went out alone and had a meal with the headman of the tribe concerned. He pitted sound sense against every Intelligence "scoop" and was always right. Bill sat in my jeep whilst I drove head-on towards an oncoming car and said quietly : "As a matter of fact we drive on the right hand side of the road out here," just in time for me to swerve. Bill kept open house for every officer, nurse or soldier that wanted a civilised home, and Bill was Field Manager in Gach Saran and Gach Saran was surrounded by the virile tribes.

The defence of the oilfields, in effect, meant the defence of the road from Pazanun to Gach Saran. In this area the tribes were liable to stop a car or lorry and loot the passengers. We had one brush with them. An excited civilian stopped an armoured "carrier" and pointed to the nearby hills where some men were moving. The crew dismounted and put a Bren gun in action. The men in the hills opened fire and so did the Bren. The action then ended. Next day we heard that one of the local gendarmerie had been hit whilst chasing tribesmen. After enquiry we pleaded guilty and his widow was sent Rs. 300. That was our only attempt to enforce the *Pax Britannica* in Persia.

The problem of being looted on the road was ever present. The tribesmen were chiefly after clothing, but all the A. I. O. C. experts agreed that they had the normal Mohammadan aversion to causing men to be indecently clad. The A. I. O. C. therefore wore under-pants, which they knew they would never lose. Those that had been looted had always come home in them. I thought over this subject for many days before I was struck with genius. Then I found the solution to the whole problem of defending the oilfields. I wore a borrowed shirt, my own trousers and no under-pants at all. I was bound to come home with all *my* clothes intact.

MEDALS

BY JAMES FRANCIS

NOW that the war is over, it is time to consider reforms in the Services.

One of the questions that needs a really good overhaul—this is clear from the numerous suggestions and complaints one hears on all sides—is the vexed one of medals. Nothing can be done to rectify mistakes and anomalies insofar as this war is concerned, but we are now in a position to put forward suggestions for reform, based on the present system. The question must obviously be tackled under two headings; first, honours and decorations and second, war medals.

The general feeling now is that decorations and honours have been allowed to drift into a muddle. There are too many of them (not individual awards, but types); certain of them are given both for gallantry and good service, without any outward sign to distinguish between the two conditions; and there is, unfortunately, little doubt that the granting of an award of any kind depends too much on the way the citation is "written up."

One need hardly enlarge on the first point. For instance, the I. O. R. can be awarded any one of the following decorations for gallantry: V. C., I.O.M., I. D. S. M. or M. M., and, in addition, there are the mention in despatches and the certificate of gallantry. As to the second criticism, the best example is the much-valued D. S. O. This has been given, to my knowledge, for acts of great gallantry; for a single act of determined leadership (not amounting to personal gallantry) in the face of the enemy; for consistently fine leadership of a fighting unit over a period of time; for leadership, not in the face of the enemy, by commanders of divisions and brigades; for distinguished service by staff officers of divisions and even of corps H.Q.; and, lastly, to very senior commanders to mark their able direction of large-scale operations.

Regarding the third point, that of the writing up of citations, I am sure that anyone who has had anything to do with the matter will agree with me. I have seen perfectly simple, clear citations of acts fully deserving of the decoration recommended sent back to be "gingered up." I have, on the contrary, seen fulsome, exaggerated citations for such awards as the M. B. E. and M.M. that would lead one to believe the recipient to be worthy of a knighthood or a V.C.

To set matters right, I would suggest the following action. First, let us cut down the number of gallantry decorations to a minimum, and let us have the same for all ranks of all Empire armies. For exceptional valour, beyond the normal call of duty, the V. C. This award is supreme throughout the world, though it is questionable whether, as time goes on, it is not becoming too difficult to win. It has been awarded 150 times in the greatest war of all time, in all the Services of the Empire. In the last war, over 600 were awarded, and, before that, a very considerable number. The paucity in this war is most marked, and some *slight* relaxation of the superlative standard is, I think, desirable.

For acts of personal gallantry not worthy of the V. C., one decoration only. I do not think the name matters—one would like to call it the Gallantry Cross, but that is impossible with the George Cross in existence—but a reasonable title would be the V. M., or Valour medal. Both should be awardable posthumously. Next, we clearly need a decoration for fine leadership "in the face of the enemy," and I would define that phrase for the purpose of this award as being applicable to personnel in units up to and including brigades. Commanders only (from brigade to section) to be eligible. Let us call this the D. S. M.

Lastly, we want an award for distinguished service not "in the face of the enemy," that is for commanders, personnel of the services, staff officers,

adjutants, Q.M.-sergeants, etc., who have rendered outstanding service in their own spheres. For this, we have the Order of the British Empire in its various classes: and, of course, for higher commanders there are other orders of chivalry also. All else should be abolished or allowed to lapse.

I have not touched on the Navy and the Air Force. I am a strong believer in the one-service idea, and, if this happy state were to be achieved, then the decorations recommended would apply to all. Even with three services, I fail to see why the decorations I have suggested should not suffice. It would certainly be satisfactory if all services could agree to accept them and no others.

As to citations, I do not know what the answer is. The same trouble is experienced in confidential reports, where we have reached the stage when to be dubbed "average" (which, in the very nature of things, some eighty per cent. of us are) is considered a dire insult! I can only suggest that recommending officers should be ordered to use brief, simple and moderate language taking any of our great prose writers as their example, and that it should be explained to them that to cheapen honour in any way is to defeat the whole object of the system of awards. At all costs, anything in the nature of a competition between formations or units must be avoided.

Now war medals. As I said we cannot correct the past, though I think that most of us are agreed that this time we have gone too far. We used to laugh at the Americans on this very subject, and now I verily believe we've outbid them. There are so many anomalies that one cannot attempt to enumerate them, but it is clearly unfair that a "globe-trotting" soldier (sometimes indicating no very great success in any one job) should earn, for a minimum of six months service on operations, up to six medals, when a regimental soldier on the Burma front from 1942 to 1945 should earn only two. I think that the last war, with three medals, was about right, though the 1914-15 star was open to criticism. I would recommend for another major war the following; one G. S. war medal (conditions roughly as for the 1939-45 medal); one "Victory" medal (we shall win again!), to be granted to all service men and women of all the Allies; and one campaign star, with bars for the different campaigns in which the recipient has taken part—these, if desired by a majority, being shown on the ribbon by rosettes.

To give people something to wear during the war—possibly desirable in a long drawn-out affair—the first could be issued after a year or so, and the last as soon as the authorities are in a position to nominate any particular campaign. But actually, without medals, a great deal can be done with operations badges (like the Indian overseas badge), formation signs, coloured chevrons to denote years of service and theatres of operations, etc. It is, too, desirable from every point of view to defer decisions regarding medals until the end of a war, when the whole problem can be seen in true perspective and the scope and rigours of the different campaigns can be properly assessed.

My scheme would give a maximum number of decorations and medals, obtainable by one individual in one war, of seven—V.C., V.M., D.S.M., O.B.E. (K., C., M.B.E.), war medal, campaign medal and victory medal; and the normal for a successful soldier might be—say—four or five. What is it for this war? I have lost count. With all the war and campaign medals, with, perhaps, one decoration and a "mention," it must be just on three rows! I have no doubt at all that we have overdone it, almost to the extent of making ourselves ridiculous. Somewhat drastic reform is necessary, and I submit my views as a basis for discussion.

WHAT OF THE INDIAN EX-SOLDIERS' FUTURE ?

BY LIEUT.-COLONEL G. A. I. SANDERS.

AFTER World War I the writer (who has served with Indian troops for over 26 years) was fortunate in being selected to carry out a fairly extensive tour of about 2,000 miles in connection with the interests of ex-service men of the Indian Army—in modern parlance, Welfare work. The first tour was followed by another for the same object.

Experience gained during these tours—and later as Military Vice-President of District Soldiers' Boards—taught the writer the following facts :

- (a) The unfortunate—but undoubted—lack of interest after World War I in the ex-soldier who had served his country, once he had returned to his village.
- (b) The ex-soldiers' difficulty in obtaining employment.
- (c) The help that an Officer can give the men.
- (d) The faith with which the Indian soldier regards his officers if they have taken an interest in him.

There were faults on both sides—Civil and Military. The men had gained the impression whilst serving that they would be given employment or grants of land on demobilisation. Having been used to receiving pay (in those days Rs. 16 a month for a Sepoy), rations, clothing and everything found (such as lighting, housing, medical treatment, etc.), they were often unprepared to accept a post such as Court Peon at Rs. 14 a month with nothing found. The Civil Authorities, however, could obtain a civilian to carry out the work for that pay, so why, they asked, should they pay more just to employ an ex-service man ? To the argument that the ex-military man had been used to discipline, would obey orders and was trustworthy, the Civil replied that the ex-military man might be used to discipline in the Army and was probably trustworthy, but that often he was not willing to take orders from a Civilian in charge, *e.g.* a Head Peon.

There were cases also—many of them—where men had applied for a piece of land and it had been either granted, or refused. Many, many of the grants of land that were given were entirely unsuitable for cultivation, for the sole reason that they were pieces of what is known as "waste land"—rocky, barren land with no water. Such grants by the Civil were understandable since, quite naturally, all the best land was already occupied.

The "refused" areas were often of the already occupied class. But the writer came across a good many cases in which the inability of the ex-service man to obtain a piece of land or a house site was directly traceable to procrastination on the part of the subordinate Civil Officials. The writer was able to get a number of such grants passed by Collectors. Many other matters also had to be dealt with, such as delay in the payment of Pensions, non-receipt of Medals and balances of Pay, etc.

The above very brief survey will have given some idea of the conditions that prevailed after World War I. Can they be improved for ex-service men after World War II ? They can, and the following are only a few suggestions by which it is hoped that the lot of the ex-service man may be improved after World War II.

AFTER WORLD WAR II.

Preparation for demobilisation should take place whilst a man is still serving, but at not too early a stage (else he may forget what he has been told). The war now being over, however, armies of Occupation will be required in various parts of the world, and in the circumstances the future strength of the Services cannot be determined now. (Throughout this article references to "military" and "ex-service" refer equally to the R. I. N., the Indian Army and the R. I. A. F.).

But once the general demobilisation plans are decided, and before the men disperse to their homes, they should be informed of the following facts:—

- (a) An ex-service man, however gallantly he may have served his country, whatever hardships he may have endured, must be prepared to accept the "market rates" prevalent for employment in civil life. The Government will help him to obtain civil employment in these conditions.
- (b) Except those who have won awards for gallantry in the field, he must not expect grants of land (except as shown further on in this paper).
- (c) He can obtain Educational assistance for his children.
- (d) He can obtain help from the District Soldiers' Boards, and R. and E. offices.
- (e) There will be Land Schemes for ex-service men in which, if he desires, he can participate—and it should be to his advantage to do so unless he already owns sufficient land to which he can return after the War.

LAND SCHEMES FOR EX-SERVICE MEN.

When travelling through India everyone must have noticed the many large areas of country that are not cultivated. Some of these areas are thick jungle; some are bare, barren wastes; some are rocky hills. The latter are probably beyond the possibility of any practical use; but not so some of the jungle and barren tracts. There will be people who will say: "What, try to cultivate the jungle tracts? Much too much labour would be required. Besides, they are mostly Reserved Forests." Others will say "Try to cultivate those barren wastes? From where will you obtain water, and without water what use is the land?" Still others will say "Why worry about all this? The average Sepoy has a piece of land already to which he can return."

Are these arguments worth "shooting down" or not? The writer thinks they are.

Let us take the last first, since, if every man has sufficient land already to which to return, then there is no advantage in considering any post-war land settlement schemes. True, a good many men enlisted in northern India do own some land. Some quite an appreciable amount, and for these, obviously, land settlement schemes are unnecessary. Others, however, through the "fragmentation" process, own very small plots, often separated from each other.

In Southern India it is the exception for an Army man to own any land. A few have a very small plot; the large majority have none, and work as agricultural labourers for high caste landowners. A past Census Report of the Madras Presidency revealed that a large proportion of the population of the South live—exist—on Rs. 3 a month, with a wife and family to feed! As the

South now produces well over a third of the whole Indian Army (and somewhat similar proportions of the R. I. N. and R. I. A. F., unless the writer is mistaken), for them alone settlement schemes are worthy of consideration.

It must be admitted at once that, apart from jungle and waste land, there certainly is not anything like sufficient to go round to the number of ex-service men who, themselves and their children, would be most thankful for a plot on which to settle. But is the jungle and waste land of no use ?

To grant such a plot to an *individual* ex-service man would merely be repeating the conditions following World War I and the last state would be worse than the first.

Must, then, this land remain unused ? And must the needy returned ex-service man go without a piece of land ? It cannot be denied that the vast majority of the Indian population is agricultural and that at the bottom of their hearts their great desire has always been to have a piece of land of their own. Is it necessary to say again to them "It is regretted that no land is available," when so much is apparently lying idle ?

If grants are to be considered on an *individual* basis, the answer to this question would seem to be "It is regretted that no land is available." If, however, the question is viewed on a *co-operative* basis, the answer can be "Yes" at any rate for a lot of men.

It is clear that an *individual* who might be given 5 acres of jungle would not have the capital to purchase the tools necessary for felling trees and clearing the area, nor for fencing it to keep out wild animals. Nor would the individual have sufficient capital to sink wells, erect windmills or electric pumps for raising water, or to construct long watercourses to bring water to a barren piece of land.

But suppose 100 or 1,000 ex-service men were to combine together and form a Colony where resources could be pooled (including the special Deferred Pay which is being put aside monthly by the Government for every man for use after the War). This, surely, is a different picture ! With the combined labour and capital available, great things could be achieved.

As the writer sees it, the Colony would work somewhat on the following lines :—

There would have to be a Director—call him what you like—Director, Manager, Supervisor, Commandant, Commanding Officer. He would be the co-ordinator of all lines of activity—and there would be many lines. An Officer who has served with the men, who has sympathy with them and with the future of India, who is energetic and a good administrator, who can speak the men's language and is keen on making a success of the Scheme and willing to serve with the Colony for at least the first 5 years of its existence, would be an essential. An Officer who is not young enough or fit enough for an active command would be quite suitable for the Colony.

Since the Colonies would form a vital part in the maintenance of contentment amongst the large post-war population of ex-service men, and would form potential reserves of fighting men for some years to come, and in order to conserve the men's own savings for their direct benefit on the Colonies, the writer suggests that the Officer in charge of a Colony should be paid by Government (possibly at re-employed rates) and that his service should be permitted to count towards pension.

The amount that the Officer would cost Government would be infinitesimal compared to the good that he should be able to do for ex-service men and the

future of India. To pay him a living wage, however, out of the Colony's finances, which, until the Colony becomes self-supporting, would consist greatly of the men's savings and their Deferred Pay, would be both undesirable and much too serious a drain on the Colony's capital.

The Officer in charge would require a Staff to assist him. The number and their functions would vary according to the size of the Colony, its location, what is to be grown or turned out by the Colony, and so on. He would require also certain Advisory Committees—formed from the men themselves—to assist with such matters as what crops do best in the area, times for planting, irrigation, housing, sanitation, road building, supply of tools, food supply until the Colony becomes self-supporting, sales of produce, welfare, religious and disciplinary matters, transportation, finances, and many other items.

Colonies should aim at becoming self-supporting as soon as they can, but they are almost sure to require a certain amount of subsidising by the Government in their early stages. There will be scope for many types of ex-service men on a Colony, *e.g.*, men to till the soil (the majority); men to build the living quarters, stores, offices, workshops, ancillary buildings, bridges, aqueducts, wind-mills, water towers, pumps, reservoirs; those to erect water channels and to instal water systems, electricity (if the Colony is near a Grid System), drainage; those to drive and maintain lorries for transportation of produce and supplies, and tractors, etc., for ploughing; men for the repair and sharpening of tools; dhobies, barbers, butchers, mochis, tailors, sweepers, storemen, medical personnel, surveyors and draughtsmen, watchmen, educational and agricultural teachers, welfare workers, clerks, cooks, carpenters, blacksmiths, tinsmiths, bricklayers, masons, etc. If water transport is available, then boatmen also.

All these can be found amongst ex-service men.

The men should be allowed to bring their families to live on the Colony and housing, medical, etc., arrangements should provide for this; also for a small bazaar (as the Colony may—and in many cases will—be at a considerable distance from a town). A reasonable proportion of playing fields, sports gear and radio should be included on the Colony. A locally constructed stage could well be added by the men themselves.

Every man who joins the Colony should be of good character and should be required to sign a certificate of his willingness to abide by the rules of the Colony. Such rules should be kept as simple as possible, compatible with the general well-being of the Colony, the principle being "each for all and all for each."

In the early stages, until the Colony is self-supporting, it will be necessary to provide the men with some kind of pay and rations; and, in malarial districts, with mosquito nets, long sleeves, long trousers, socks, shoes or chappies, anti-mosquito cream and oil. In the interests of the well-being of the very large ex-service population of the country, and in recognition of the valiant part they have played in helping the Empire and India through the War, this cost should obviously be met by the Government.

Men wishing to join a Colony should, it is suggested, transfer from their Units to the Colony and continue to draw pay, rations and clothing (at modified scales—see below) from the Government until the Colony has become self-supporting. When this stage is reached, the Colony should take over the financial burden. The man would transfer on the special terms as made applicable to ex-service men's Colonies.

Pay should be the basic pay of rank with good service or proficiency pay earned at the date of transfer; but Appointments would be dropped on leaving the Unit. Rations would be at peace (and not Field Service) scales. As to clothing the men's desire to get out of uniform and work in civilian dress should be allowed, and it is suggested that an issue of clothing for use against the mosquito at night, together with a blanket, durry, chapplies, shorts and F. S. Cap (or pugree for Sikhs); plus a cash allowance for replacement of civil dress wearing out during work on the Colony, would be a suitable arrangement.

The men should be permitted to obtain payment issues of rations and clothing from Supplies and Ordnance for themselves and their families.. Medical, welfare, education and the religious sides must all receive attention, for the men themselves and their families. When a Colony first starts it will be necessary to borrow Government tents until such time as houses and buildings are ready.

Once the Colony has been made "ship-shape" as a whole, it would seem desirable to divide up the estate so as to allot an area for general use (for central stores, bazaar, offices, staff quarters, workshops, garage, reservoir, etc.) and a plot for each man. The plot, under certain conditions, would eventually become the man's own. The conditions, in broad outline, would be that the man gave satisfactory service to the Colony and that he cultivated a proportion of the plot for the general benefit of the Colony, the remaining portion being for his own benefit and that of his family. There will be times—especially in the early stages—when it will be necessary for the men to work for the Colony (as opposed to working on their own plot), *e.g.* for construction of a road, water channel, etc., for the good of the estate. The men must be prepared to do this, but it should be arranged, as far as possible, during slack periods of cultivation.

The land allotted for a Colony should be a free grant from the Government or under very easy repayment terms. It should be of sufficient extent also to allow for expansion. There should be little difficulty over meeting these requirements, since the areas visualised for the Colonies are the jungle and "waste" tracts referred to earlier in this paper.

Looking to the future, the desirability of an initial allotment of more ground than is actually required at the start, must be apparent, for the following reasons :

- (a) It will allow of the formation of a long-term policy and thereby assist planning ahead.
- (b) It will allow for extra men to be accommodated on the Colony as time goes on. The Indian soldier is conservative in his outlook, and to begin with may not come forward in large numbers to join the Colonies. But as time goes by and the men use up their Demobilisation pay and see the Colonies taking shape, there is likely to be an increase in the number of applicants for admission to the Colonies.
- (c) Part of the area will be required for buildings, part for recreation grounds, part for cultivation, and part should be set aside for the production of firewood for the Colony. In the case of Colonies in "waste" areas, a sufficient extent should be set aside and tree planting commenced at once, to provide future estimated requirements of fuel. In jungle areas a space must be reserved in which cutting timber and brushwood for fuel would be permitted under control, and re-afforestation must be commenced to replace the wastage. Close co-operation must be maintained from the very

beginning with the Forest and Agricultural Departments of the Government, both for advice and for supply of seeds, saplings, etc. Colonies should be permitted to purchase at Government rates (and not forced to pay the rates as supplied to the public).

All these matters must receive consideration when deciding upon the extent of ground necessary to place a Colony on a sound basis at the beginning and for the future. It is not intended that the whole area to be taken over for a Colony should be necessarily brought into use at the very beginning. Keep a reserve.

The use of a Bulldozer (or Angledozer) in the early days of a Colony would save long wearisome hours of manual labour and would help to get the Colony going quickly. Where stone is available locally, a Compressor (with its rock-drilling plant) would help to produce stone for the buildings. In jungle tracts, a Compressor (with its cross-cut saw) and a Tractor would save an immense amount of time and labour in clearing the area. Colonies should be allowed to have such machines on loan from the Sappers and Miners.

A few lorries and one or two station wagons (depending on the size of the Colony and its distance from the nearest town and railway—or river if suitable for water transport) will be required. These should be a gift to the Colony from Government surplus stocks—of which there must be an abundance. Drivers can be found amongst the men on the Colony.

A most important point that must not be overlooked is the absolute necessity for elasticity in the control of Colonies in their early days. With the best will in the world, it will be quite impossible for the Officer-in-charge to make all his forecasts with entire accuracy. So many unforeseen—and unforeseeable—incidents will occur to upset calculations. A great deal must depend on trial and error and experience gained as time goes on. It will be fatal to the working of a Colony if the Officer-in-charge is to be tied down in all directions to narrow limits. There are great possibilities for these Colonies—let them be treated reasonably liberally and they should be a great success. The writer has prepared plans and designs for the lay-out and buildings for Colonies accommodating 1,000 men, but owing to lack of space, they are not published with this paper.

The writer is painfully aware of many gaps left empty, or only partially filled, in this article. It does not pretend to be exhaustive, but is an attempt to put down some thoughts on paper for further study. They may, indeed, have all been studied and worked out already.

(*Note.*—The writer has not had an opportunity to study the working of the few ex-service mens' Colonies that already exist, and he apologises to Brigadier Brayne for any serious errors in the foregoing article !)

"PUT THE MADRAS SOLDIER ON THE MAP AGAIN!"

BY "PHOENIX"

MUCH has been written and probably more spoken, about the future composition, size and status of the post-war Indian Army. One aspect of the subject does, however, appear to have failed to secure its due share of recognition.

One of the oldest units in the Indian Army is the Q. V. O. Madras Sappers and Miners. They are not only known by all, but are held in the highest esteem by those best able to judge. Not only has this Corps shewn its ability to assimilate technical knowledge and master such difficulties, but its members have time and again proved, that courage in battle and disregard of personal safety are amongst their most conspicuous attributes.

From exactly the same stock and recruiting areas are drawn the men who form the Madras Infantry units, of which there is now one regiment of five regular battalions complete with its own training centre and training unit; also the thousands of Madrassis who have enlisted and rendered invaluable service during the war in the Indian Signal Corps, R. I. A. S. C. (all its branches), I. A. M. C., Indian Artillery and I. E. M. E., to mention but a few of the units in which they have and are serving in ever-increasing numbers. Is it now generally known that more Madrassis have voluntarily come forward for service in this war than from any other province in India? Prior to this war there was but one regular unit recruited from the Madras Presidency—the Q. V. O. Madras Sappers and Miners—so that this is a truly remarkable achievement.

Is this great war-effort to be acknowledged after the war by a retention in the army of a similar proportions of Madrassis, or are they again going to be classified as a non-martial race and, therefore, largely excluded from enlistment as was the case in, say, 1937? To do so, I suggest, would be both ungrateful and foolish, for if Madrassis are not to be included in the post-war army in their fair proportion, the whole laborious process of training a race, as different from Northern Indians in language and customs as it is possible to be, will have to be gone through again, for it is certain that if India is embroiled in any future war she will have to call on Madrassis for assistance. It is easier to train and expand an Army from people accustomed to bearing arms than to raise anew an army from a race which has been allowed to wallow in military decay and neglect.

Because Madrassis were so little recruited before the war, many officers have but a limited knowledge of them and are inclined to regard them as untried troops of an unknown quality; some, indeed, have said that since they are not of India's martial races they are of doubtful value, at least as far as combat troops are concerned. Nothing could be further from the truth.

As gunners in the Middle East, Madrassis proved their value on more than one occasion, firing their guns to great effect, though themselves suffering heavy casualties. As infantry in Burma they have time and again shewn their worth, and have accounted for a very creditable number of Japs. They have proved their endurance on long marches, and on their ability to carry out long offensive patrols over the most difficult type of country. Not only that, but they have shewn staunchness in attack and defence. In the G. P. T. Companies

they have revealed their mechanical ability, and have often been called upon to drive their vehicles while under shell fire, or to bring up rations, reserve ammunition, etc., along an L of C which was anything but safe. In none of these circumstances have they been found wanting. In short, in nearly all branches of the army they have been tried under field service conditions and have shewn themselves good soldiers. What more could one ask? The case for the inclusion of Madrassis in all branches of the post-war Indian army is unassailable. But to get the best results from them, their characteristics must be carefully examined.

As one system of Government may suit the British people, another and totally different form may be found to be more appropriate to another country—say Russia. In all probability neither system of Government would be workable in the other's country, for their customs and mentality are entirely different. So, too, is the Madrassie as different in every aspect from the Northern Indian as the British are from the Russians; therefore, it is reasonable to assume that a military organization and system which is found most suited to the Northern Indian will not necessarily be the ideal for the Southern. Let us aim at the ideal in all cases, and above everything else let our post-war army be flexible, so as to obtain that suitability to all castes which alone will produce the best results.

Every detail for the future organization of the Indian Army must be the subject for profound discussion and very careful thought by the most knowledgeable heads of departments, but I suggest that the following line of thought might prove profitable.

Certain difficulties have to be overcome in contemplating the number of Madras units in all branches of a regular standing army under peace conditions. First there is the fact that Madrassis are not homogeneous but are divided into many sub-castes, of which Tamil, Telugu and Malayalam are the most prominent. Some are Mohammadan, some Hindu, some Christian. The three main sub-castes all speak entirely different languages, while a few minor sub-castes also speak yet another tongue. The army language is Urdu, but there is hardly a single recruit who can speak a word of that language on joining so that virtually everyone has to be taught it as a completely foreign language—an imposing problem! However, it is a fact that a far higher proportion of them can speak English than is the case amongst Northern Indians.

In order that the Indian Army should not be a "tower of Babel" but should work on a smooth economic basis it is essential for Madrassis to learn Urdu. This is being done, and the men gain varying standards of proficiency. But is not here a golden opportunity to concentrate on English? English is, may be, the commercial language of the world, and one of the aims of the army in India is to raise the standard of living and fit men, after their service, to be useful citizens of the state. Knowledge of English is a useful attribute and should, therefore, be given a high priority in the curriculum of the educational schools of any Madras unit.

In conjunction with the language problem, the type of officer who would be most suitable must also be considered. Unlike a Gurkha battalion, the parade language in any of the Madras units is either English or Urdu, or a combination of the two, generally known as "British Officer's *bât*". It probably takes longer to convey one's exact meaning by any of the above methods, and even then it may be imperfectly understood, than it would in Tamil. This, however, is done purposely, for it is realized that Madrassie soldiers will have to compete on equal terms with the Northern Indians at all Army Schools of Instruction, where the medium of instruction is Urdu and, therefore, unless they

have reached a moderately high standard of proficiency in that tongue good results from the course cannot be expected.

So, too, must the officer not only have passed the Higher Standard Urdu examination, but in a reasonably short time he must have reached such a degree of proficiency in one of the indigenous languages, Tamil for preference as it is most common, as to permit of his carrying on a normal conversation with a Sepoy in a colloquial manner. This high standard in language proficiency imposed upon the officer will probably mean that only those officers well above the general standard will succeed in a Madras unit. This condition must not only be faced, but actively encouraged, for one of the characteristics of Madrassis is that their value as fighting troops is in far higher proportion to the qualities of their officers than is the case amongst the majority of other classes enlisted.

Another problem to be faced and overcome is that at present the Madrassie is inclined to suffer from an inferiority complex when he compares himself with other units. It appears to be due to a variety of causes. The very fact that he has so long been neglected by the army is probably one of the prime causes, as it has led him to believe that he is considered to be an inferior being. Nothing breeds inferiority like inferiority; but by inclusion in a post-war Army this cause will rapidly be eliminated, even as it is already far less pronounced. Other contributory causes, such as shortness of stature and darker pigmentation of the skin would soon disappear by beneficial army routine and good leadership on the part of his officers.

Some may not realize the traditions and *esprit de corps* which exist amongst Madrassis. Some declare quite wrongly that since Madras units have only been included in the regular army since the outbreak of the war they naturally have no traditions. Such statements show lack of knowledge, for some Madras infantry units did form part of the regular army right up to 1927, when it was decided to disband them, largely for economic reasons. We have seen what a false economy that was.

Going back into history, it is well to remind ourselves that the native element of the Hon. John. Companie's Army was composed largely of Madrassis. Moreover, were not the armies of Wellesley, Lake and Warren Hastings largely composed of Madrassis? And did not all those great commanders speak very highly of the native element under their command? Indeed, it is due to Madrassis in no small measure that the British were able to maintain their footing in India against their powerful rivals, the French, whose European element was greater than ours at that time, and whose influence with native rulers far out-matched that which we could bring to bear.

Surely these are traditions of which one can justly be proud? The Madrassie is proud of them, but all he asks now is that his martial traditions of the past should once again be recognized. This can best be done by restoring Madras units to the Regular Army in direct proportion to the services they have rendered in this war, and by ensuring that they be given the best type of officer, be he British or Indian, to help them maintain the high position they have won for themselves among India's fighting men.

INDIA'S POST-WAR NAVY

By E. F.

*God and our Sailors we adore
When danger threatens,
Not before.
With danger past,
Both are requited
God forgotten, the Sailor slighted.*—Old Saying

THE Royal Indian Navy has probably for the first time in its long and honourable history become more or less generally known all over India. This is probably due to a number of causes, amongst which are :

- (a) Its tremendous increase in size since 1939.
- (b) The active part the Service has played during the present war, both in the defence of shipping in the Indian Ocean and elsewhere.
- (c) The policy of recruiting for the Navy from all parts of the country.
- (d) The energy and the propaganda drives of the Public Relations Directorate.

It is, I think, also possible that the Japanese drive in 1942, and their raids into the Bay of Bengal, made a certain amount of people realise that the invasion by sea of India was a possibility. There is, however, a very real danger that, if we are not careful, India's post-war Navy will soon fade out of the public eye and sink quietly back into oblivion, becoming merely a small flotilla of out of date ships.

Brian Tunstall in his preface to "Ocean Power Wins" says :

"At present there is a real danger that in the post-war world the electorate will fail to give sufficient weight to Naval needs in terms of budgetary expenditure." He is speaking, of course, of the British electorate, but it seems to me that this applies even more forcibly to the Indian electorate.

Before going any further, we should try and satisfy ourselves that a Navy is really necessary! Few people seem to realise what an extremely large part sea power has played in the past history of India. From the time of Alexander the Great to the beginning of the nineteenth century the Indian Ocean was the scene of continual scrapping, and from the time of the arrival of the Portuguese of Calicut, sea power has always been the trump card in the destiny of India.

To take a more recent example, in the dark days of 1942 what would have happened if the Axis Powers had had command of the seas? India's vital supplies of oil and petrol, which, after the capture of the Dutch East Indies and Burma oil fields, had to come from the Persian Gulf and further afield, would have been completely cut off. Her Air Forces, would have been grounded, her armoured forces static. India would indeed have been in desperate straits.

In the war as a whole, seldom before did sea power play so great a part. In the days of Dunkirk and in the months that England was threatened by invasion. In the Battle of the Atlantic. In the Mediterranean, in the days of Malta and Crete and then in the invasions of North Africa and Sicily and finally in the invasion of Normandy. In these magnificent campaigns in the Pacific.

Nor must we forget the part the Navy, our own Indian Naval ships included, played in the Burma campaign. To-day sea power is as vitally important as it ever has been.

In spite of all this, there are, and there always will be, those who will say that sea power is a thing of the past. There were many who said it after the last war, more will say it now this war is finished. The lessons we have learnt will be forgotten, and we shall be told that a strong Air Force will be all that we shall need. Personally I am convinced that the most efficient force of the future will be composed of Army, Navy and Air Force Units, all working in extremely close co-operation with each other.

There are still quite a number of people, who when one murmurs something about sea power, are apt to explode and say "Bah! Battleships Sir! Damned expensive luxuries! A few bombs and they sink!" What I would like to point out is that sea power does not and never has meant merely battleships or even warships. Switzerland might own half a dozen super warships but they would be of little use unless they had somewhere from where they could operate. Sea power means the combination of all those things, weapons, bases, geographical positions, which enable a nation to control transportation over the seas during peace and war. The warship is of little use without the Merchant ship, for it is obviously of little use guarding our trade routes if we have no ships to carry our trade and vital supplies. Neither warship nor Merchant ship is of much use without favourable geographic conditions; that is to say a coastline and harbours.

A glance at any atlas will show that India's geographic position cries out for sea power. Practically the whole of her trade and supplies must come *via* the sea; it seems therefore a logical conclusion that unless she is content to leave the work to others, India must have her Merchant ships to carry her supplies and her warships to guard her trade routes and Merchant ships.

Having convinced ourselves, if no one else, that India should have a post-war Navy, it might be interesting to consider what form this Navy should take, bearing in mind the tax-payer while we do so. We must look at this from two points of view: Personnel and Material. Let us take the question of personnel first. It is, of course, impossible to expect to keep up one's war time strength in peace time. Peace time personnel will normally consist of two main categories, regular and reserve.

The tremendous expansion of the Royal Indian Navy since 1939, shows quite plainly that the necessary personnel are available. Before the war men for the service were being recruited from a few districts only, practically all of them either came from the Punjab or from the West coast of India, south of Bombay.

To-day we are recruiting from every part of India and from almost every creed and religion. The men live together often in very cramped quarters, work, play and fight together side by side in excellent harmony. I think there is little doubt that the post-war recruits will continue to be taken from all parts of the country. These men would be the back-bone of the service in time of war, they would provide the trained back-ground, the gunnery and torpedo specialists, the mechanical experts, the wireless specialists, and so on. It is essential that these men are of the very best as they would become the builders of India's future war time Navy.

The Reservists may be either men who have done a certain amount of regular time or men who are serving in the Merchant Fleet, or, as at Home,

in the fishing fleet. The contributions to the Royal Navy in personnel that have been made by the Merchant Navy and fishing fleet at Home are too well known to recapitulate. India's Merchant Fleet will undoubtedly expand after the war and should be able to provide a number of the Reserves. The local fishing fleets of the Indian Coasts are well known to all those who have sailed these waters. The fishing boats themselves vary from medium-sized sailing craft to small canoes and even the latter may be found thirty to forty miles from the coast. Like the crews of the dhows which trade in the Indian Ocean, the majority of these fishermen are excellent seamen. I think it is not unlikely that after the war we shall see the introduction of motor or steam fishing fleets in these waters. I see no reason why the men of these fleets should not be as useful in time of war to India as the men of the British fishing fleets are to England.

The advantage of drawing a certain number of reserves from the Merchant and fishing fleets is obvious, these men are already seamen. In these days of mechanical gadgets one is inclined to forget that seamen are still required at sea. It is surprising how valuable good seamen are, and it is impossible to teach men to become seamen by giving them lectures; practical experience is the only real school. When one realises that a large percentage of India's Naval recruits have never seen the sea, the advantage of having a good reserve of trained seamen is obvious.

Having discussed the preliminary question of recruitment I think the next stop is administration. Napoleon once said, "Morale is to the material as three is to one." I looked up the definition of morale in my Oxford dictionary and I read "Discipline and spirit pervading an army or other body of persons." It is a word that one hears mentioned continuously in time of war, but not, as far as I remember, nearly so often in time of peace. Yet surely morale is just as important in peace as in war. It does seem to me however that morale is mixed up to a certain extent with material. For instance if, of two equally good battalions, one was armed with all the latest modern weapons and the other with pikes and bows and arrows, the former's morale would surely be the better of the two. The same must hold good in the Navy. It is difficult to take a real interest in ships and weapons which one knows are years out of date.

There are many other things which affect morale. Pay is of course an important item, and we must not forget that in these days Petty Officers and the higher specialist rates have to possess a high degree of technical and general knowledge. The educational examinations which they have to pass are not easy. I think it is important that we give up the simple sailor theory. We must remember that the majority of the seamen of the future will be highly-skilled technicians and we must pay them as such.

Welfare is another important item. The welfare organisations had done magnificent work during the late war, and I sincerely trust they will carry on after the war is over. Men must be kept occupied. The old saying that "the devil finds mischief for idle hands," is as true in a service as anywhere. Few things are worse for a ship's morale than to be kept month after month doing nothing.

There is one other point which I think is worth mentioning while we discuss this question of Morale. Practically all men are at heart ambitious, and if a lower deck entry finds that he has little or no chance of promotion he is liable to get depressed. There should be a fairly large percentage of lower deck promotions, and every recruit to the service should be told what his chances are for promotion to the higher ranks. All these points come under administration.

Now a few words about Officers. Much will depend on the future Indian Naval Officers, and the standard will have to be very high.

Unlike the British Naval Officer, the average Indian Officer has not got the Naval tradition in his background; the majority have had no previous connection with the sea or the service in any way. This need not make any difference, but the regular Indian Naval Officer who makes the Navy his career must absorb the traditions of the Service. He must learn to put the honour and efficiency of the Service before everything and should have a genuine love for ships and the sea. Politics and racialism must be subordinated to the good of the service; so that he will retain the confidence of his men whatever their religion or community. There are to-day many Indian Officers in the Service who live up to this very high standard, and I see no reason why their successors should not do the same.

As in the case of men, we were at the beginning of the war greatly handicapped by the lack of trained reserve officers. Both the Royal Indian Naval Reserve and the Royal Indian Naval Volunteer Reserve were only started a few months before the outbreak of war. The magnificent work that has been done by Reserve Officers during this war is too well-known to be gone into now. The point is that we must keep these two branches of the Service fully recruited in time of peace. I do not think there should be any great difficulty in this.

Finally we come to the question of material. I do not propose here to go into whether India should specialise in battleships or submarines, but rather to discuss the matter briefly from a very general point of view.

One point must stand out. There is little doubt that the Air in the future will play a large part in the maintenance of sea power. Naval Aircraft and especially Carrier borne aircraft proved their value many times over during the late war. I imagine their value will not decrease in the future, and I think the time must come when India will have to consider them for her own Navy. Another side of the Navy which I think has come to stay is the landing craft side. The Royal Indian Navy has already got its own Landing Craft Wing which I hope will remain. This is undoubtedly a specialised form of Naval work, and one which will become increasingly important.

The main job of any service during peace is to train for war. The Royal Indian Navy during the late war built some of the finest shore training establishments in the world. The war also saw the establishment of Naval bases in every port in India. This must not be allowed to fade away as soon as peace is declared, nor must the gear in the training schools be allowed to become obsolete. I should like to see training schools and training ships for Reserves, both officers and men, in every major port in India. I should also like to think that the good work carried out by the W. R. I. N. S. in the late war will not be forgotten. They will be needed just as badly should war break out again, and I see no reason why a certain number should not be employed in peace. In any case, their training should not be allowed to lapse.

As for ships, India has always had a small ship Navy, but I hope the day is not too far distant when she will possess her own Cruisers and Destroyers. In many ways I am in favour of small ships, especially from the training point of view; but I think the time will shortly come when the Indian Navy should take over larger and more powerful ships than she at present possesses. Finally, in case there should still be some doubt whether a Navy is really necessary I should like to end up with another brief quotation from a well-known General:—

“If anyone wishes to know the History of this war, I will tell them that it is our Maritime supremacy which gives me the power of maintaining my Army.”
—Wellington, 1813.

PUBLICITY IN INDIA

BY BRIGADIER F. L. BRAYNE, C.S.I., C.I.E., M.C.

TWO big tasks confront those who are making our post-war plans: (1) To raise the standard of living in the village so quickly and so high that it will begin to affect the birthrate before the rising tide of population swallows up all further possibility of improved standards. (2) To lay on an immediate short-term programme of simple uplift to fill the gap while the big things mature, to prepare the people for the big things when they do come, to convince them that Government is in earnest and knows its stuff, and to prepare the village and the villager for the returning soldier, so that he will not find apathy and opposition among his home folk and the subordinate officials with whom he comes in touch.

By simple uplift I refer to such things as manure pits, good seed, ventilators, drains and pavements, the proper disposal of waste water from wells, street and house, the use of latrines, the filling up of little depressions which might hold water and breed mosquitoes in the rains, the growing of fruit and vegetables, terracing and embanking of unlevel fields, keeping the village clean, etc., etc.

Those things cost little money but mean a very great deal in health, wealth, happiness and in the raising of the general standard of living. Without such an interim programme to keep the people profitably busy while government plans are preparing there will be such frustration and disillusionment when the inevitable reaction sets in after the war, particularly among the ex-service man, that any large scale and long range planning is likely to fall flat when in due course it matures.

The actual programme of uplift must vary in various parts of India, and must be drawn up in full detail for each area so that everyone, official or non-official, may have the clearest possible picture of his target—the ideal home farm village and town or society for his particular part of India.

Having drawn up the programme, the next step is to take it to every home in the land and particularly, of course, to bring it to the women, as upon them more than upon the men depends the standard of living. This will mean great enthusiasm and missionary zeal on behalf of all ranks of officials from the highest to the lowest, and a gigantic publicity campaign. But although plenty of long term and large scale schemes are being drawn up, the planning and selling of a simple uplift programme does not seem to be receiving the attention that their urgency and importance demand.

People who brew beer—even good beer—spend vast sums telling people all about it, so that as many people as possible may buy the beer when it is brewed. People who make post-war plans must also spend large sums in making sure that everyone, even in the remotest hamlet, shall know all about them, and be ready waiting to take advantage of them when they come along, meanwhile getting ready for them by doing all the many little things that they can do themselves, which cost so little, but mean so much in health, wealth and happiness.

There are many ways of preparing people for new things and they must all be used. Here are some:

1. A village weekly picture paper. This is best run as a provincial concern, into which each district inserts its local news, gossip and special features of uplift and development.

2. Radio. As soon as Indian industry can provide cheap sets, the public must be taught to want to listen, and to want to listen so much that they will join together and buy sets, and then keep them going and not let them lie with empty batteries and missing valves. The ex-service man will be very helpful here and the installing and servicing of sets and the charging of batteries will provide work for many. A really first-class programme of news, instruction and entertainment will help greatly to make people radio-minded. Government cannot and must not pauperise the people with free sets. They will cost too much and will not be appreciated.

3. Touring cinema, exhibition and lecture vans, coming within, say, three miles of every village at least once a month. Allowing 250 shows for each van each year, this would mean working up to one van for about every 200 square miles of rural area.

4. Touring drama parties, locally formed.

5. "Better Villages" and "Better Homes" competitions, and "exhibition weeks", ploughing matches, agricultural, cattle, fruit, vegetable and flower shows, meetings and re-unions, songs, glees and speeches, tournaments, and sports meetings, not only at headquarters towns but at rural centres, so that everyone may have at least one show every six months within five miles of his home.

6. Books, posters, pamphlets, leaflets and other literature.

These are the principal means of publicity. There is no doubt that the provincial departments of publicity will have to be expanded many-fold if Government really intends to tackle the general standard of living.

The more permanent ways of teaching and organising the people to make the best of Government's programme are as follows:

The School.—When we see how Germany used education to make all her youth Nazi-minded, we need not say much to show how easily India's youth could be made progress-minded, health-minded, crafts-minded, hard-work-minded, co-operation-minded, radio-minded, citizenship-minded. We can do anything with the young, but so far we have done little except make them clerk-minded, government-job-minded, and politics-minded.

The Patwari.—He is generally regarded as an enemy to progress, certainly by the military classes. He must be brought into line with the help of better pay and prospects, and a full training in uplift, citizenship and service. Even when in line, however, he will still have his own special work to do, and his main contribution will be goodwill and sympathy, the "word in season," rather than the continual assault upon things which require attention.

The Panchayat, organised and supervised by trained staff to levy taxes and spend them in administering its area and introducing every kind of improvement, mending roads, building drains, improving wells and installing pumps, insisting on ventilators, manure pits, vaccination, inoculation and everything else necessary for the health and comfort of the people. In the end the *panchayat* will see that the little girls and boys go to school and that they have a proper play-ground, drinking water, and money for sports and library books; it will see that the *dais* are trained, and that no untrained *dai* is allowed to practise. It will arrange clinic and pay for a resident nurse for the visiting

doctors, male and female. Once the *panchayat* has learnt to raise and spend money, and has gained the confidence of the village, there is nothing it cannot do to make the people healthy, wealthy, and happy.

The *co-operative society*, organised and supervised by trained staff. By this means those who wish to make progress are bound together in all manner of useful activities, such as Better Living, Better Farming, crop marketing, poultry-keeping, bee-keeping, industries and workshops, medical aid, *band* building, fruit growing, consolidation of holdings. There is no useful activity which will not be the better for being organised by a Co-operative Society, and a net-work of Co-operative Societies is the ideal way of binding together the ex-service men in the scattered hamlets.

The Village Guide.—Ex-service men carefully trained in the whole “uplift” programme and adequately paid and supervised, one for every 2,000 homes or 10,000 people. They will have tahsil or taluk and district supervisors, and a Provincial Director.

The village guide is the centre of the publicity system. He belongs to no department but does the work of all. The provincial Director of the Village Guides would also be the director of the whole publicity machine. The Guide receives and distributes all publicity material; he works in all villages, good and bad, promising and unpromising, he sits by the wireless and discusses the news and the advice given to the farmers and artisans. He is the advance agent of the cinema van, and drama party, and he gets the people ready for the visit of the agricultural officer, the health inspector, and all the other specialists and never lets the people forget what they said.

The Departments of Government that work in the villages will require great expansion. Even the best-found departments at present cannot be described as much more than skeleton services. And the District Officer will have to be reinforced so that he may tour his villages, co-ordinate and develop the work, and be the captain of the team.

So much for the publicity campaign. Most of it however, will principally affect the man. But the women are even more important. The standard of living is the standard of the home and the home is in charge of the *gharwali* or house-wife. So if we wish to raise the general standard of living, we must secure the active assistance of the women. This will mean the doing of many things:

- (a) Our programme must give prominence to all the little things that will give the women the most help and relief in their difficult task of running homes and bringing up children in the present rural environment. I mean such things as chimneys, better well-tops, hand-pumps, drains and paved streets, better cooking and washing arrangements, latrines, fly nets for the babies, pictures for the walls, flowers for the compound and vegetables and fruit for a better diet. All these things must be explained and demonstrated in every home in the land.
- (b) Women's welfare services must be developed to the absolute maximum in order to bring the woman up level with the man as quickly as possible. So backward is women's welfare work and so long will it take to secure the number of trained women required that there need be and must be no financial ceiling. Education (including compulsory domestic training in every recognised school and college and for every examination, diploma and degree), medical and maternity aid, and the co-operative organisation,

must be expanded as rapidly as staff can be trained, and there must be a fully-staffed general welfare service to control, co-ordinate, supervise and stimulate this work from Provincial Director down to the village worker.

- (c) The women must have their village guides (women, of course) just as the men have theirs, well-trained, paid and supervised, resident practisers and preachers of the better home—working up to one for every 1,000 homes.
- (d) Touring teams of teachers (also women) must live a month or so in each village, and teach the elements of running a home and bringing up children, making and mending clothes, cooking, food values, hygiene, child welfare and everything else a house-wife and mother should know.
- (e) When they move on, they must leave behind a co-operative women's institute organised and supervised by a properly-trained staff of women, from sub-inspector to provincial registrar.
- (f) There must also be domestic training schools in every district and *tahsil*, where general courses as well as special courses can be given to those who can come and stay a month or so. These women will go back and spread the light in other homes as well as their own, and will become secretaries and committee members of the Co-operative Women's Institutes.

This is the suggested lay-out for publicity if we wish to get full value and a quick return from our post-war planning. The part to be played in all this by the ex-service men of all ranks, (and in time we hope his wife too) is easy to see. With his army training in citizenship and his special preparation for civil life, he can and should be the life and soul of the whole business. Either as a private citizen or as a member of the expanding services, he should find useful and interesting occupation, and sometimes, we hope, full or partial livelihood in every branch of this system.

A WIDER ASPECT OF INDIANIZATION

BY LIEUT.-COLONEL Y. S. PARANJPE.

"IN the peace years it is our first urgent and vital task to engage soldiers and scientists together to determine the weapon or war device that is to influence decisively the next war. On that determining factor we base everything ; on that we build up our operational policy, our whole tactical technique, our whole training—perhaps, also, our whole foreign policy."—thus wrote "Auspez".

WHAT is at present understood by the word "Indianization" is the replacement of the British officers in the services by similarly-trained Indians. Some progress has already been made in this direction, and it is certain that even more will be done in the future. The excellent article in the *Journal* by Major-General F. M. Moore reflects the unbiased and progressive views held by some of the more senior British officers of the Indian Army and is very encouraging. It assures one of the trend of thought in higher circles.

During all this process, however, one point appears to have been neglected. In the India of the future, for which we are beginning to plan, not only is it necessary to consider the officers and men who will fight in the Defence Services ; but also those who have to produce the weapons and equipment for these men ; so as to build up a strong and mobile fighting machine out of them. The two must go together. One without the other is powerless.

If one takes a fully-equipped infantry soldier and examines him from his steel helmet down to the hobnails in his boots, one gets an idea of the enormous problem of equipping an army. This is but an infinitesimal fraction of the total requirements. Then there is not only the army to be considered but the other Services as well. When one reads about the astronomical figures of the tonnage of the equipment that was landed in the Middle East and later in France, one realises the efficiency and magnitude of the production and supply organizations that made the campaigns the success they were. It also serves as an eye-opener to us for future planning.

Modern war is a war of armaments. There is hardly any difference in the individual fighting capacity of a soldier of various nations, if his morale is high and does not crack. All other factors being equal, his morale will not crack if he is confident that his weapons are at least equal to, if not better than, those of his adversary. The responsibility for this lies with those behind him, who provide him with the weapons. One cannot expect, for instance, to win battles in soft vehicles, however brave the troops may be, if they have to face enemy armour.

Modern war is, therefore, a race in the production of armaments. It is a competition in producing more and better arms and equipment. The 2-pdr. gun, the German Mk. IV tank, the 6-pdr. gun, the German Tiger Tank and the 17-pdr. gun—so ran the sequence of counter-measures in the desert fighting in the Middle East. The same thing holds good for other arms and services.

Research in this direction is constantly going on. Many a new weapon is designed in peace time and stowed away to be produced as a surprise in war. Originality of design in peace and production at the right moment in war, is the secret of success in this race. Any amount of purchase of armaments from foreign

countries will never be of any use in war, except possibly during the preliminary short period. Soon they will be outnumbered and out-classed by a nation, with her own production facilities.

If, unfortunately, a country has to depend on another friendly country for the supply of war material, she must at least ensure that her communications to that country are secure, so that the flow of the material is uninterrupted. This depends on sea power. For many years to come India's naval power will not be strong enough to protect her life lines across the seven seas. With a L of C vulnerable to under water and air attacks she cannot depend on England or America supplying all her war requirements. Her condition will be the same as that of China with the Burma Road cut.

Air transport, in spite of its development, can never take the place of the merchantmen and the tonnage they carry. If England is involved in the war as well, her navy will be engaged on duties other than the protection of trade routes to India.

In other words, what it boils down to is that India must be prepared to stand on her own legs for the production of the necessary war material. It is, therefore, incumbent on those who are planning for the post-war India to see that this essential requirement is not missed out.

What we have to aim to produce are :

- (a) Men who will design and manufacture small arms, guns, tanks, mines, explosives, etc.
- (b) Shipbuilders and shipbuilding engineers,
- (c) Aircraft designers and aeronautical experts.
- (d) Wireless experts and electricians,
- (e) Metallurgists and chemists
and a thousand and one other specialists.

These men cannot be produced out of the "sausage machine" of the O. T. S. like army officers in an emergency. They require training and experience for many years to be good at their job.

Nations in the West have an advantage over India as regards these personnel, not only as a result of a higher state of education but also due to the encouragement given to private enterprise. Commercial firms, in peace time, manufacture sporting arms, ships, commercial aircraft and other items closely allied with war requirements. These firms also supply the Governments of their countries with army, navy and air force material. Trade competition produces better designs and thus ensures a general progress. In war time these manufacturers turn their efforts entirely to war production; and armament expansion on the unprecedented scale witnessed in the late war, is made possible. The basis of this production programme is the nucleus of experts, who exist in large numbers in peace time; and the experience they gain in the manufacture of everyday commercial articles.

India has a very small number, if any, of such experts; but has to produce them. It will take a long time to do so. It is, however, never too late to start and no other time is more suitable to start than the present one. This is a subject closely allied with the defence of the country and therefore, should be taken in hand during the reorganization of the Indian Army.

In socialist countries like Soviet Russia, all industry is under state control. In other countries large industrial organizations exist; such as Vickers in England, Krupps in Germany and Skodas in Czechoslovakia. This is not the place to go into the merits and demerits of state-owned industry versus private

enterprise, but unless a nation decides to adopt a socialistic system of Government, private industry of this nature must be encouraged and, if necessary, subsidized by the Government.

There has been a ban on the manufacture of any kind of firearms by private concerns in India for obvious reasons. The times have changed now. India is endeavouring to take her place in a world of free countries. The reasons which existed in the post-1857 years do not exist now. This ban should therefore be lifted and manufacture of armaments by licenced and government supervised private firms should be allowed. The difficulty of expansion of the armament industry in India to provide for the campaigns in the Middle East and Burma are still fresh in our memories. The time lag between the introduction of any new weapon in the war equipment tables of units and the actual provision of it, is too well-known to all those connected with the Indian Army. Units have to wait or use dummy weapons until "sufficient supply arrives from U. K." By the time it arrives from U. K., the weapon itself is usually declared obsolete in that country. How simple it would be if there were a Vickers or a Krupps or a Skoda of India!

This much for the armament side. Apart from this there are essential items such as mechanical transport and A. F. Vs., aeroplanes and ships, wireless sets and signal equipment, chemicals and explosives, all of which must be produced in the country. Civilian enterprise in this direction must be encouraged by the Defence Department, even with, if necessary, financial help from the defence budget. Strategic railways which do not pay in peace time are subsidized from the defence budget. Certainly manufacture of war material deserves a higher priority than the railways.

Praiseworthy indeed, have been the efforts made by the Indian Ordnance Services in the late war; but they could not take the place of large concerns like the firms mentioned above. The difficulty was and has always been, as pointed out before, that of finding trained personnel with the necessary technical knowledge. Importing them from other countries cannot solve the problem satisfactorily. In time of war countries cannot spare them and, if they are supplied, they certainly will not be their best men.

The state of industrial backwardness of this country has been the result, primarily, of a lack of proper appreciation of the role she had to play in the war and, secondly, of a very shortsighted policy of reserving the Indian market for British manufacturers. There has been a third reason in the case of the manufacture of arms; that of suspicion. What has happened is past history now; and the only lesson to derive from it, is to ensure that the country does not find herself in the same kind of predicament in the next emergency.

There is no shortage of raw materials in India. With a few exceptions large quantities of them are available and are at present being utilised in the country. Further efforts in prospecting will, certainly, unearth many new sources of supply. Nor is there a shortage of raw material for training as technicians and scientists. It is only the question of selecting the right boys and giving them the right training here and abroad. In all this training one point must be borne in mind, that the passing of examinations is different from the application of the knowledge; hence the necessity of selecting well-qualified and intelligent candidates. Further, that on their return they must be given full facilities to apply that knowledge in existing or new industries.

There is many a concern like Tatas, which will be only too pleased to accept them for employment. These are the industries which are to be our future Krupps and Skodas.

Defence of a country cannot be guaranteed unless the production of war material is in national hands. The ideal in war is national self-sufficiency. No country in the world can hope to attain that completely. The goal to aim at, therefore, is to be as much independent of other countries as possible; so that the nation's war effort is not affected by fickle and uncertain diplomatic relations.

An all-out effort to attain this self-dependence is therefore, necessary. Small "Bevin Boys" schemes do not answer the problems. We do not want to produce "350-rupees-per-month-superfitters" out of "35-rupees-per-month-apprentices." What is required is a large scale scheme for the selection, training in the country and abroad, and, later, employment of intelligent men, with a view to nationalizing all war production industries.

National planning on a large scale is now going on in India. Various schemes are being evolved. There has been a Sargent report on education, a Bombay plan for industrialization of the country and very soon the Army Reorganization Committee will be deciding the fate of the post-war army. The question is—Have these plans been compiled independently, or has there been, or is there proposed to be, a joint consultation? Education, Industrialization and Defence planning dovetail into one another for a total national planning. It is the educational system of the country that produces the right men for the industries. It is the industries which will absorb them and it is the Defence Department of the country that has to depend on them to produce the war essentials.

It is, therefore, a matter for joint planning by all the departments toward one goal—Development of the nation and her protection against aggression. The latter is just as important as the former because mere development without the feeling of security is like a *bania* with a sackful of money sitting in the centre of Waziristan.

I suggest that the present Army Reorganization Committee should sympathetically consider this matter, and that a sub-committee consisting of Services representatives, Indian industrialists and such other men as are necessary for its deliberations, should be asked to report on the ways and means of attaining national self-sufficiency from the defence point of view.

The following are some suggestions in this direction—

1. There should be a "Ten-year plan of National self-sufficiency."
2. Army and other authorities should put before the industrialists the requirements of the Defence Services. These would be graded :
 - (a) Production that can be taken in hand immediately and requiring no additional help of personnel or material.
 - (b) That which can be produced with locally-trained personnel given the necessary number of young men and the facilities for their training.
 - (c) That which cannot be attempted until a sufficient number of well-trained experts are available. This may mean a long term policy of education in this country and abroad.
3. Industries will then be in a position to work out their requirements with regard to trained technicians.
4. The Educational Department should then put up a scheme for the preliminary training, selection and final specialist training of such men. This may involve a very high standard of competitive examinations and the opening of special training institutions. Existing war production factories in the country will be available for the students to gain experience.

5. The Industries Department of the Government and the big industries must then employ these trained men.

6. The Defence Department must, however, guarantee that they will purchase all their requirements in India, provided they are according to specifications and of reasonable price. This may bring in the question of subsidies and protection.

7. The soldier, the scientist or engineer and the manufacturer must then work hand in hand so that defence requirements, designing and production are based on a mutually coordinated plan.

The suggestions made above are in no way meant to interfere with the spheres of the industrialists or the educationalists; but this is a vital defence question and, as such, defence must influence the policy. The discovery of the weapon, or war device, is the business of the soldier helped by science. The development brought about by the evolution of society, its industries, its commerce, are the business of the civilian; but the soldier is intimately concerned in keeping a watch on these developments to turn them to his own warlike purpose.

"Five year plans" or "Ten year plans" have been favourite expressions in the international sphere of industry. Some nations have tried them and failed while others have succeeded beyond recognition. What Russia has done in this direction is only too obvious and any nation would be proud of such an achievement.

No one can be more interested in such an undertaking than the Defence Services, as it is the foundation of India's defence planning. It can, therefore, only be appropriately called and treated as the "Wider aspect of the Indianization or Nationalization of the Defence Services of India."

MAN MANAGEMENT

By H. B. E.

"PRISONER and Escort: Ten-Shun. Right turn !, Quick march !" In less than minute the prisoner goes off to the Quarter Guard cells to undergo his punishment.

In awarding this punishment, are we certain that we should have sent him to the cells if we had taken just two more minutes in deciding his case ? Did we notice that his defaulters sheet had been clean, and that his service was under eighteen months ? Did we look deeper than at his face ? Did we attempt to see his point of view ? Did we know that he had had no leave since he was a recruit ? Did we think of the repercussions these seven days R. I. would have in the future ? Had we taken a little longer we might have considered these things, and instead of putting that first red ink entry into the man's sheet roll, we might have started him on his way to V. C. O.'s rank by a few fatherly words.

Patience is a very important virtue. It is an asset to the art of "Man Management," and we whose profession it is to handle hundreds of men might do well to take a leaf out of the "Animal Master's" book. There it is said that *"Horses are trained by reward and spoilt by injudicious punishment."* The trainer of animals will never inflict punishment unless he is certain that his pupil wilfully disobeyed him. Did the horse really understand what was required of him ? If he did not, the virtue of "patience" is put into practice until he does understand, and then when he responds, he is rewarded by a pat on the neck or with a titbit. He will soon associate this reward with obedience, and the trainer goes one step further forward towards producing a perfect horse.

The man-master might say: *"Men are trained by reward and spoilt by injudicious punishment,"* and if he bears this in mind he will be on the right track to improving the discipline of his unit. Reward the "first offender" with kindly advice, and in the long run such tactics will reduce the hours of your orderly room, and your young soldier will associate this reward with obedience.

The animal-master is ahead of us with his "Association of Ideas" principles. To be a good trainer of animals one must thoroughly understand the animal's mentality. It has been said that a horse has no intelligence, and that the gap between his way of thinking and that of his master is considerable. Some link, therefore, is necessary between the two if they are to work in harmony. This is provided by the "Association of Ideas" method. In other words, everything unpleasant must be associated with something pleasant. In the initial stages of a horse's jumping lessons he is sent down a lane without a rider on his back. At first he will refuse every jump, but eventually he will get to the far end of the lane to find a trough full of grain. He will soon associate this grain with going over the jumps, and it will not be long before he will enjoy going down the lane in anticipation of the feed he will get at the end.

Take heed, Man-Master, and the next time you take your recruits for a long night march, see to it that there is some hot tea waiting for them on their return. There is a big gap between the Indian recruit's mentality and his officer's. Fill it by using the "Association of Ideas" method. Your recruit

will not mind carrying a heavy pack and rifle for miles if he can associate a cup of hot tea with the end of such a march ; but send him to bed with a dry and dusty tongue, and he will soon begin to long for his mother and father in the little quiet village 200 miles away, and it will not be long before he joins them, only to be brought back under escort. Another good soldier spoilt during the first few months of his service.

In training a young horse it is essential that we should thoroughly understand him before we can expect him to understand us. The same principle applies to the training of a recruit. We must adapt ourselves to his way of thinking and to his intelligence. If this is done in the early stages, our problems will become less as we go on, and a mutual understanding will arise. Walking about for three or four hours daily watching recruits on parade is no qualification to judge what is going on inside a recruit's mind and body. The good animal master studies his pupil in the stable, and he notices if an animal goes off its food. In the evenings, after a hard day's work, he walks round and learns a lot. He sees the "Grey" in the corner resting its near foreleg, and running his hand over it, notices a little heat which tells him of a slight sprain or strain, which he would never spot in the riding school when the horse is warmed up.

We have watched our recruits when they are warmed up, climbing over walls and jumping ditches on the obstacle course, but have we ever followed them back to their barrack rooms at the end of such a parade ? If we had, we would perhaps have noticed that Recruit Abdul Aziz was not too keen about his breakfast, and that Wylat Khan was sitting on the edge of his bed with one boot off. A few questions would have told us that the former had been off colour for a day or so, and an observant eye would notice a large blister on the heel of the latter. We might also hear a few remarks about the temper of the P. T. Havildar. We would come much nearer the truth by such observations than we should from the sick parade state a few days later, after both men had been admitted to hospital.

The young horse is often terrified of a new strange obstacle. Does the animal-master drive it over ? No, he will get off its back and progressively lead the pupil over it, and when the crossing has been accomplished the pupil will be rewarded by a pat on the neck. In this way the animal learns to trust his master, and later there will be no need to dismount. Despite its fear the animal will reason out that no harm can befall it whilst in the hands of such a person, and it will go forward, however terrifying the *nullah* or ditch.

Again the man-master can learn much from the animal-master. He should ask himself : "Do I drive my men or do I lead them ?" If the recruit is terrified of crossing over a rope bridge, cross over first yourself and he will follow you. If he learns to follow and trust you during his early training, he will follow and trust you later in battle.

To be successful with animals or men, the master must have patience and sympathy. If we have these two qualities it will not be difficult for us to understand our pupils, and if there is understanding on the master's side, it will soon be evident in the pupil. If we set out to improve their lot, it will increase their trust in us, and once this is attained it will not be difficult to inspire into them friendliness, and with this both remount and recruit will give of his best and without constraint.

Of horses it was said by Xenophon 2,000 years ago : "Never deal with them when you are in a passion. . . . What the horse does under compulsion

is done without understanding, and there is no beauty in it." These teachings are as true to-day as they were then, and they apply as much to recruits as to remounts.

A remount is timid by nature. His courage is the result of the understanding between him and his trainer. In this respect a young recruit and a remount are not dissimilar, and understanding on the part of the master is the only thing which will produce the results aimed at. Every recruit, like the remount, has his limitations. He may reach the summit of his ambition in a year, or it may take him six years. Once he has attained this he will never surpass it. No amount of bullying and driving can produce the impossible.

The good horseman understands his own and his horse's psychology. If he forgets this for one moment, things will go wrong. No two horses present the same problem. Recruits also have their own individual peculiarities; they all need individual handling, and cannot successfully be turned out *en masse*. Anything young, whether it be horse or man, should be treated as a piece of plastic clay which can be moulded. The better the designing hand, the more excellent the result. Recruits are very much like remounts in that they do not respect a weak character, and the instructor who does not conduct himself as he should do, will seldom be able to claim the respect of his men.

In training a horse the master aims at convincing his pupil that he is doing everything of his own free will. Teach recruits to think the same, and they will go about their work with gusto. This remark also applies to V.C.Os. and N.C.Os. A clever old horse once said to his rider, "Master, my eyes must be open when I jump. I think perhaps yours would be better closed." In other words, the trained horse did not want interference. The trained V.C.O. or N.C.O. just returned from the P. T. School knows more about his job than you do. Do not interfere. Give him his task and let him get on with it. In this way we shall get the best out of everyone. Only interfere when things go wrong, and then try to be constructive and not destructive.

Do not overwork your recruits, and do not expect the impossible from them. In training a young horse just up from grass, progression is the rule. The animal master first aims at "Free forward movement," and after this is accomplished he aims at producing "Balance," and finally he gets "Perfect Collection through Flexion." To work the other way round would court disaster. Muscles and tendons would become tired, and this would lead to breakdowns and finally hospital. Young soldiers just up from "grass" must be treated with the same progression. Take them out for long route marches in full marching order before they have learnt "Free forward movement" and they will break down. Teach them first to march over long distances without the burden of pack and rifle, and you will have no trouble. Do not force them to play strenuous games in the evening after a very hard day's work, but rather let them enjoy a period of rest in the very place where they are normally obliged to work.

If a young horse disobeys, the first thing a trainer will ask himself is: "Does my pupil understand what he is expected to do?" In nine cases out of ten he doesn't, and it is necessary for the trainer to carefully work out a method whereby the animal does understand. Punishment in this case would get him nowhere. Are we always satisfied that the recruit knows what is expected of him?

Again, a trained horse suddenly refuses to jump a fence over which it has been several times before. The layman would use his whip on the horse, but

the animal master would consider several possibilities. Did he hurt the horse's mouth the last time he jumped this fence? Did the horse rap his legs against it? Has he got sore shins or feet? An inspection of the mouth may reveal a slight bit injury, or heat in one or both of the legs would give him the reason for the refusal. Is the man-master as careful over such things as the animal-master? We know that whereas a horse cannot tell us of his troubles, a recruit can if he wishes to do so, but will he? Most likely he will not. He has too much pride for that. Even though he cannot stand up to the strenuous P. T. exercises as well as his mates, he will not say so. He will not report that blister on his heel which has been caused by wearing army boots for the first time, until it becomes a large septic wound, and unless the man-master finds these things out for himself the pupil will suffer physical pain. In time this will become mental pain, the homing sense will become uppermost, and the boy may possibly run away to his home.

The good animal-master can "anticipate" trouble ahead, and he fixes his horse so that it cannot give trouble. Does the man-master ever "anticipate?" Has he noticed that a certain bright recruit has become dull and listless? If so, has he bothered to seek out the cause for this change in temperament? It is our responsibility as man-masters to "anticipate" such changes in temperament, and unless we do so, we have not learnt the first thing about psychology.

Correction and reward will carry us far further forward than injudicious punishment. The animal-master has learnt this psychological fact, and as a rule the experience gained in the handling of animals is of great use to him in the handling of men. Let us therefore adopt some of the principles employed by animal-masters, and see how these rules can contribute towards the proper handling of men.

The trainer of the young horse or man should bring to his work great natural qualifications. He should possess all that fondness for his work, and that interest in each pupil, that patience and good temper, that insight into each character, and the best way to meet its peculiarities. He should be quick to see trouble brewing, and to anticipate and provide for it.

To be worthily classed a trainer of horses or men the most necessary qualification to possess is to be able to understand a horse or man, and by instinct, as it were, know his thoughts and contemplated actions, so that you may frustrate them when objectionable. It is far better to know that a horse or man intends to run away, and prevent him from so doing, than to shut the door after he has gone, and then be forced to punish him when he is recaptured.

The trainer of horses or men should know himself first, and have complete control over his own temper. He should be firm but gentle, determined to accomplish his purpose, and have the necessary patience to carry him through to that purpose. If he is painstaking and indefatigable, his pupil, whether horse or man, must and will respond. Psychology is the science which classifies and analyses the phenomena or varying states of the mind. Its use in animal or man management is classified as "common-sense." Are we certain in our dealings with men, that we always use it?

When your men subconsciously smile as they salute you, you have accomplished something great which the officer round the corner has not.

WATER SUPPLY FOR ASSAULT LANDINGS*

BY COLONEL F. L. ROBERTS, M.B.E.

"Water, water, everywhere and not a drop to drink."—

Coleridge, "Ancient Mariner"

IN the January number of this *Journal* appeared an article on water-supply in the field. Some readers have been kind enough to let me know that, as a result of personal experience in jungle warfare, they fully agreed with the suggestions it contained. I am therefore emboldened to carry the study of this very important subject yet one stage further, namely in its application to water-borne operations. My comments and suggestions are based on personal experience during the water-borne operations so successfully carried out by 15 Indian Corps in its advance down the Mayu Peninsula and along the Arakan Coast.

For the benefit of those who have not seen the type of country in which these operations were carried out, here is a description of the terrain. It is not easily visualised; experienced senior officers from all three Services who visited the 15 Indian Corps front invariably remarked that in spite of all they had read and heard about it, the country and the conditions it imposed had to be seen to be believed.

Standing inland from the general coast line lies the range of hills known as the Arakan Yomas. The westward foothills of this range are thickly jungle-clad and precipitous. Between these lower hills and the coast, the terrain consists of flat paddy-land, with patches of bushes and trees, the whole flat area being intersected by waterways, most of which are tidal and fringed with dense mangrove swamps. These tidal waterways run far inland from the coast, winding their several ways for mile upon mile through the primeval mud and slime of mangrove swamps. Sometimes they converge and form wide waterways up to two or three hundred yards in breadth. Appreciable areas of this low-lying land are thus cut up into islands, narrow peninsulas and the semi-submerged isthmus.

But that is not all. One of the major causes of headaches is the elementary factor of tides, which presents two aspects new to every soldier who has had no experience of assault landings in this type of country. The first aspect is that whereas the speed of modern transport does sometimes confer the ability to make Time wait for man, the rise and fall of the Tide are immutable and wait for no man. The move of a motor convoy can often be delayed in order to meet unforeseen circumstances, without jeopardising success; but when your "convoy" consists of a flotilla of landing-craft you may *not* alter its time-table in tidal waters unless you are prepared to put that time-table back by 12 hours, which is a serious time-lag from both the operational and administrative points of view.

* This article was written before the end of the war, but because it deals with a subject of just importance in water-borne operations it is well worthy of study.—*Ed.*

The other aspect is the matter of Spring tides. They rise to a height which, to the unsuspecting landsman, appears phenomenal, especially in low-lying paddy-land. For instance, at Kangaw was an expanse of paddy-land stretching about half a mile inland from the *chaung* beach-head to the nearest high ground at Hill 170. This flat area, partly covered with trees and bushes, offered what appeared to be an ideal area for the lay-out of beach-head dumps. But the Spring tides not only swamped the whole of this area up to and beyond Hill 170, they inundated it to a depth of up to $2\frac{1}{2}$ feet in many places. Naval Officers on combined planning staffs are the experts who will always keep you informed as regards the daily rise and fall of the tide; but even they are not always able to predict the extent to which a Spring tide will inundate an area in country which has never before been surveyed or charted.

Another factor, which is apt to come as an unpleasant surprise—is brackish water. In this type of *chaung* terrain it is easy enough to find water in the belt of paddy-land by digging holes a few feet deep. Such water is, however, as undrinkable, as the tidal salt water in the *chaungs* themselves. In fact, the level of the water in such water-holes frequently rises and falls with the tide and this peculiarity obtains often as far as a mile or more inland from *chaung*-head. It follows therefore that we cannot expect to find or develop sources of fresh water until the assault troops have cleared an appreciable bridge-head; which usually means that the foothills must be secured. These foothills must be secured for tactical reasons as well, so as to deny enemy observation of the beach-head. The need for securing ground in which to develop water-sources renders it doubly necessary that those foothills be secured with all possible speed. We must expect our enemy to realise this fact; he has, after all, been living there before we arrived. Hence we must be prepared to provide adequate quantities of water to our own assault troops until such time as they have cleared the area and the sappers have developed local sources.

These are the principal factors which confront a force, *vis-a-vis* its water supply, when carrying out an assault landing in *chaung* country; and it may be as well to summarise them so that we can see at a glance what we are up against:

- (a) The L. of C. consists of tidal waterways, which means depending on water-borne craft instead of M. T. or A. T. Owing to the long and circuitous waterways, the turn-round in our transportation agency is inordinately long.
- (b) The fall of the tide places a definite limit to the number of hours during which craft can operate up the *chaungs*. This limitation means that replenishment at beach-head is less frequent than when the L. of C. is on dry land; so our stocks at beach-head and inland thereof must be sufficient to cover the time-lag created by low tide.
- (c) Inundation by Spring tides necessitating the erection of dumps above high-water level, or being located on high ground further inland. As regards water storage, this implies the provision of gear and containers for carrying water inland from the *chaung*-head.
- (d) Brackish and undrinkable nature of water found in water-holes in the vicinity of *chaungs* and other tidal waters. There results an increased demand in imported stocks of water to cover the period until sources further inland can be secured and developed,

- (e) In hot and humid climates, such as pertain in mangrove-swamps, human beings need more water than they do in arid but non-humid climates. This factor calls for larger numbers of water-containers being available in the first 24 hours of a landing, because the leading units need not only water for immediate consumption but a further stock readily at hand when the first lot of emptied containers has to be sent back for re-filling.

Well, there it is. Time and Tide are both against us in our efforts to achieve the ideal of a constant flow of transport delivering water and other supplies. At the same time, such water as we do put ashore is being rapidly consumed, and there is little likelihood of developing local resources until leading units have secured an adequate bridge-head in the foothills. Even though maps and air photos give promises of wells in local villages, it would be most unwise to count on securing such sources of supply at an early hour; or, having secured them, to count on them not having been contaminated by the enemy or destroyed by Air and artillery bombardment. What gear do we need then, to ensure that our men and medical units shall have sufficient water until and even after local resources have been developed?

Firstly, the initial assault troops have neither the time nor numbers to spare for handling heavy water-gear; nor is it likely that the mangrove-fringed mud banks which form the "beach" will have been sufficiently developed to allow of landing any heavy gear. The only satisfactory equipment is the 2-gallon tin. Experience in the Arakan showed that for an Infantry Brigade, with its supporting units (Artillery, R.E., Medical and Pioneers) and allowing for the Beach Detachment, a *minimum* of 4,000 2-gallon tins is required in the first 24-hours. Thereafter, relays of another 2,000 tins per 24 hours are required. This initial 4,000 tins is necessary because nothing will persuade men to part with their only containers. They are not camels, and so cannot carry a 24-hour stock in their stomachs. So, as we must have the empty tins returned for re-filling, we must give our men the means for holding a 24-hour reserve in forward units.

A proportion of these 4,000 tins must accompany each wave of assault landing-craft. The build-up of an adequate water-dump in the beach-head area during the few hours before the tide ebbs is an urgent necessity. Having provided a dump ashore and subsequent relays of filled tins to replenish that dump, our next step is to provide bulk storage at the beach-head, so that tins can be re-filled there instead of having to send them back in returning water-transport. The saving in time and tins by re-filling at beach-head needs no further stressing. Equipment for storage is provided in our Field Company each of which carries canvas tanks. The staff will have to ensure that if Field Company equipment is inadequate in capacity, additional canvas tanks are provided from other Field Companies in the Division or, if this is not practicable, from Corps Engineer resources.

Here we must not forget those Spring tides; and this reminds us to provide the Field Company with sufficient timber to hoist the canvas tanks above the level of the highest water-mark. In siting these very prominent objects we must remember that they will inevitably draw hostile artillery and mortar fire; so they must not only be camouflaged, but must also be located well away from the landing stage area, petrol and ammunition dumps.

Having arranged for bulk storage, we must have bulk delivery to beach-head and the necessary pumps and hoses to convey water from the bulk-container

to the storage tanks. The most satisfactory bulk-conveyor is a self-propelled barge, capable of holding up to 10,000 gallons of water. Each barge must meet the following specifications :

- (i) Be self-propelled. A narrow *chaung* with its winding upper reaches will not allow of haulage ; (ii) have a flat bottom so that it can dry-out and rest on the mud when the tide goes out ; (iii) be narrow in the beam, as is an L. C. A. ; (iv) have its own pumping engine ; (v) have sufficient hose-pipe to enable delivery to storage tanks up to 500 yards distance from the " beach ; " (vi) have a capacity of 10,000 gallons, which is sufficient for a Brigade Group for 48 hours. This double capacity will mean less barges than if they were to carry only a 24-hour supply ; and (vii) be proof against small arms fire.

Some might advocate fewer and larger barges but, apart from the danger inherent in putting a large proportion of one's eggs in one basket, there is the tactical requirement of flexibility. Hostile opposition or the terrain may compel a commander to switch subsequent waves of assault troops or a follow-up Brigade to another waterway. To be able to meet such circumstances your water-supply craft must be as capable of diversion and dispersion as are your assault landing-craft. Hence it is advisable to have barges on a scale which allows one barge per Brigade, and one for the rearward area of Divisional H.A., F. M. A., M.D.S., etc. This makes a total of four per Division.

Generally speaking, larger sea-going vessels should be able to navigate up to a 12-hour run of most beach-heads. Thus if our barges carry and deliver a 48-hour supply to beach-head, there will be ample time for them to return to sea-going ships, refill and be back at the beach-head on the tide 24 hours later.

I do not advocate that these barges should form part of the war equipment of a Division, but since provision must be undertaken it is as well to estimate requirements. We must have a small reserve to replace casualties and wrecks, so if we aim at 10 barges per Corps of two Divisions we should have sufficient. Sub-allotment from this Corps pool would initially be made in accordance with the number of Brigades being deployed during the initial assault landings.

It is almost certain, especially in the case of operations involving an approach-voyage of more than 48 hours' duration, that water-barges will have to be re-filled from ocean-going ships. Whether this provision would be more economically made from special water-ships or from the tanks of Transports and/or Freighters after they have discharged their cargoes at the release position, is a matter for decision by those who plan these operations and will presumably depend on the shipping resources available at the time.

To summarise the foregoing requirements, we need :

- (a) 2-gallon water-tins at a scale of 2,000 tins per Brigade Group as an initial issue, and a further 1,000 tins to follow up on D+1 day.
- (b) Canvas tanks with Field Companies capable of storing up to 4,000 gallons. With these tanks must come sufficient timber to raise the tanks above the maximum height of the local Spring tides.
- (c) Barges, self-propelled and proof against small arms fire, capable of navigating narrow and shallow waters, with a capacity of 10,000 gallons ; with pumping engines and sufficient hose to effect delivery up to 500 yards inland from beach-head. Provision to be on a Corps basis at a scale of 10 per Corps of two Divisions.

Two more points are worthy of consideration. Firstly, if mules are to be added, then the provision of water and canvas troughs for these very worthy friends must not be forgotten; they dislike brackish water even more than do human beings. Secondly, can we have a definite nomenclature for water-containers? At present we have the "jerry-can," which holds approximately 4 gallons. This is rather too heavy for handling by assault troops, who are already heavily-laden with fighting equipment. Then we have the normal 2-gallon petrol tin, which is not strong enough to stand up to the rough usage of assault operations. The third type already in use—the 2-gallon *welded* tin—is what is required. What we need is a specific name for each of these types, so that units will know what to ask for, and rearward staffs know what units want.

Whatever the type decided upon as our water-tin it must fulfil two specifications: (a) it must be strong enough to stand the shock of a parachute drop from air-supply aircraft, and (b) the stopper on each tin must be affixed to its tin with a chain or a piece of strong wire. Any stopper which is not affixed to a tin is pre-doomed to be lost within five minutes of the tin being opened. Tins without stoppers result in waste of precious water—a waste which can never be measured against the cost of the chain or wire necessary to fix the stopper to the tin.

LETTERS TO THE EDITOR

THE PRINCIPLES OF STAFF WORK

To The Editor of the U. S. I. "Journal."

DEAR SIR,

Paragraph 3 of Army in India Training Memorandum No. 20, was devoted to an extract from the U. S. Cavalry Journal March-April 1942, entitled "Completed Staff Work."

The writer stated that "Completed Staff Work" is the study of the problem and presentation of a solution by a Staff Officer in such form that all that remains to be done on the part of the head of the Staff or Commander is to indicate his (*sic*) approval or disapproval of the completed action; that, "Your job is to study, write, restudy, and rewrite, until you have evolved a single proposed action—the best one of all you have considered. Your chief merely approves and disapproves"; and that, "In most instances, completed staff work results in a single document prepared for the signature of the chief without accompanying comment. If the proper result is reached, the chief will surely recognise it at once."

As an exposition of the attitude towards one part of the duties of a Staff Officer in the army of our United States ally it is a thought-provoking and stimulating article, but the sentiments expressed are not in accordance with our principles of staff work as laid down in F. S. R. Vol. I, Chapter 3. In this particular part of staff duties, our staff presents to the Commander all the available information with the deductions therefrom which bear on the policy to be formulated, or on the action to be taken. Assisted by this data, the Commander himself forms and gives expression to his intention and to the outline plan which he wishes to be followed. The staff work out the detailed plan in conformity with the intention given and within the limits of the outline plan. The completed work is only then presented to the Commander for final approval.

Since the article appeared in an A.I.T.M. without comment, it might be read by many as being in conformity with our conception of staff duties. Very definitely it is not.

In order to make this clear a further article is being published in A.I.T.M. No. 29, pointing out that completed Staff Work, as carried out by us, is the result of two clearly-defined phases as opposed to a single document prepared for the approval or disapproval of a Commander without comment.

These two phases are:

- Phase 1.—The presentation by the staff to the Commander of all essential information on which a decision can be made, or on which a policy can be formulated.
- Phase 2.—Concerted action taken by the staff without delay, to achieve the object which has been defined by the Commander as a result of the information made available during the first phase.

Yours sincerely,
"OWL".

On Active Service.

THREE POINTS ON THE "LETTER TO MARS"

To the Editor of the U. S. I. "Journal"

DEAR SIR,

I was very interested in Colonel Chaudhuri's Letter to Mars in your last issue, and realize that, behind the original way in which he has presented his views, there lies a serious contribution to the problem of how to organize our Post-war Indian Army. For this reason, and because a distinguished committee is now deliberating on this very matter, I venture to sound a warning on three questions raised by the Martian liaison officer.

First, the class composition of the army. There is, I think, a tendency here to let political views encroach and, of course, this is dangerous. Indians, naturally, would like to have a national army, like any European country, as soon as possible. But do let us be certain that it is "on" before we go too far. It is common in these days to hear it said that all classes are now represented in the Indian Army, and it is agreed that that army did quite magnificently in the second World War.

But let us examine this a little further. What proportion of fighting units (and by that I mean infantry, cavalry, gunners and sappers—in that order) are comprised of new or, to use an unpopular phrase, non-martial classes? I don't know the answer, except that the proportion is small. By far the greater number of these new classes have gone into administrative units where—everyone knows—they have put up a great show. But they have seldom been engaged in actual fighting, and it is the ability to *fight* successfully with toughs like Huns and Japs that wins wars.

True, there are many officers of such classes in fighting units and their record is good: but they are the pick of the bunch and, by their upbringing, are probably accustomed to take responsibility, and responsibility is a great steady-influence in battle. In any case, one swallow does not make a summer. No; by all means aim at a national army, but let the change-over be very gradual and have each step carefully tested before passing on to the next. The Indian Army, with its old composition and the very best Indian officers, will be a winner. The National Army at present is lower in the betting, and leaders should not gamble with such great issues at stake.

Second, the urge to do away with caste prejudice or whatever you like to call it. This is the popular cry I admit, but just ask yourself if you know of one single instance when caste prejudice has prevented a battalion (or regiment) from properly carrying out its duty in operations. There may be cases, but I personally have come across none. One hears, too, that caste prejudices complicate administration. Maybe they do a little, but in my experience the difficult unit to administer in operations—on account of its "prejudices"—is the British unit! So, if the men are old-fashioned and orthodox and like to keep their prejudices, then, for Heaven's sake, let 'em. Again, don't hurry. The change will come in time—is coming in fact—and anyhow its not all that important.

And, last, regimental tradition. I reckon that regimental tradition is the greatest spur of all to bravery and steadiness in battle. This is not only so in the Indian Army, where it is supreme, but in all armies. Don't throw that wonderful asset away for a dream, at any rate not until the dream is *proved* to be based on reality.

In all these cases, I would urge caution; make the reforms—if that is what they are—in stages and insist on firm consolidation of each change before undertaking the next. Hasten slowly, and keep both feet firmly on the ground.

S. E. A. C.

Yours faithfully,
"SAFETY FIRST."

USE WAR EXPERIENCE NOW

To The Editor of the U. S. I. "Journal"

DEAR SIR,

The sudden end of the War will not for some considerable period relieve the military machine in the field of large responsibilities in connection with reoccupation of liberated territories. Nor will it mean the end of the higher policy problems always facing those responsible for the direction of the military machine. Reassessment of the role of the Imperial or International Armed Forces in relation to post-war strategical conditions as seen by the Big Four, will loom large and will take a long time to settle.

Until it is settled we cannot foresee the organisation and training required of our forces, but we can at once appreciate the need for the higher education of our officers during the period of military apathy likely to follow a long war: of officers who could assist in formulating reorganisation policies and later in implementing them.

It would be a mistake for such policies to be the product only of the brains and experience of those who have so ably directed the armed forces during the war. They must be the combined product of their experience and the vigour of mind of their younger contemporaries. These with the passing of the years, would, in their turn assume the direction of the system, to the framing of which they had contributed.

We possess at the present moment a rich store of experience in the direction of war. Let us use it while it is fresh: while the importance of avoiding another war is paramount in the minds and spirit of all men: while the political background of a future peace or a future war is being evolved. Let us use experience as it is meant to be used—in its active not in its passive sense. Experience which is taken to the grave and relearned by others at the expense of human distress is a crime against the whole world.

This experience which is to be offered to the younger generation for the application of its principles to the future must be comprehensive. It must not be purely of the armed forces, it must go far beyond the mere integration of the three services. It must include experience of the integration of military policy with government or international policy: integration with economic policy and international scientific progress. It must be offered with wise guidance to a similarly representative integration of the younger generation. The latter would bring with it to the task, enthusiasm, intrinsic ability, and sufficient years yet to live in which to develop a constructive wisdom in securing international peace.

Whether this representative integration could be international is doubtful. At the present stage of our imperfect world it would probably be limited to Anglo-American participation, with power to invite representative deputations of other nations as considered advisable from time to time. "An English-Speaking Defence College rewriting F. S. R. II."

Nothing new really, but it must be now, and it must be broad in scope.

S. E. A. C.

Yours faithfully,
L. R. MIZEN,
Brigadier.

WELFARE FOR BRITISH SOLDIERS' FAMILIES

To The Editor of the U. S. I. "Journal"

DEAR SIR,

In his talk on "Army Welfare and the W.V.S." published in your issue of July, Major-General Elliott gave pride of place to the care of the soldier's family. He described how the Welfare General watches the balance between the soldier's pay and family expenses, and how S. S. A. F. A. and S. S. A. H. S. help needy cases on the spot or provide a channel of information.

Although he sees ample scope for W. V. S. help for Indian soldiers' families, and readers of Mrs. Scott's "Sisters in need" in the same issue of the *Journal* will heartily agree with him, his advice to the W. V. S. in regard to the British soldier's family is merely to "pass the baby" to the appropriate S. S. A. F. A. or S. S. A. H. S. bureau. That is perhaps all that can be done for soldiers whose families are not in India, but he might have touched on certain forms of practical help at Child Welfare Centres for the families of British troops in India. These centres exist in several stations, and one that I know is sponsored by the W. V. S. under the Maternity and Child Welfare Bureau of the Indian Red Cross. There is much scope for wider service by these centres, and wider recognition of their useful but inconspicuous work.

To the Centre just mentioned there is a constant flow of families of Officers and B. O. Rs., not only to seek advice from doctor or nurse, but to weigh the baby, buy infant food and medicines for which one should be grateful to the Canteen Services (India), hire a pram, get some rationed knitting wool, borrow books, attend socials and so on. Some Welfare Centres run a kindergarten and have facilities for under five-year olds to come and play.

Soldiers need to feel that their wives and families are cared for in the Indian stations where they have left them, not only when their families are in trouble, but to prevent trouble.

A. B. P. O., No. 11

Yours faithfully,
B. J. AMIES,
Colonel.

BOOBY TRAPS AND THE N.W.F. MYTH

To The Editor of the U. S. I. "Journal"

DEAR SIR,

To Captain Bristow's list of booby traps in your July number I can add another from personal and almost painful experience. It is an unexploded R. A. F. common shell, plastered with mud into the grate of a fireplace, ready for the heat of the next fire.

I note in the same number Lt.-Colonel Spaight's article "The Frontier Myth." I think I wrote my first of not a few articles on that myth in your pages somewhere about 1930. It is now 1945, and Colonel Spaight has to assault this same myth. I hope he gets a hearing.

Yours faithfully,
"AUSPEX."

NOTES BY THE SECRETARY

America Honours Viceroy and C.-in-C.

One of the most important honours which the President of the United States can bestow on non-Americans was recently conferred on H. E. Field Marshal Lord Wavell, Viceroy of India, and on H. E. General Sir Claude Auchinleck, Commander-in-Chief in India. The presentation ceremony was conducted between the twin buildings of the Imperial Secretariat, Delhi, by Lieutenant-General R. A. Wheeler, Commander of American Forces in the India-Burma theatre. The citation read at the presentation acknowledged America's indebtedness to India in the late war; in the case of Lord Wavell it paid tribute to his energy in building up the country as a vast base behind the S.E. Asia Operational Area; while to General Auchinleck tribute was paid to his collateral work in that sphere, and his exceptional success in creating a great army to support the Allies' effort.

Council Members' Appointments

Their many friends in United Service Institution will have learned with the greatest pleasure of the appointment of Sir Olaf Caroe to be Governor of the N.-W. F. P. in succession to Sir George Cunningham, and of Sir Chandulal Trivedi to be Governor of Orissa in succession to Sir Hawthorne Lewis. The former appointment will date from March 2, 1946 and the latter from March 31, 1946.

As Secretary of the External Affairs Department, Sir Olaf Caroe has been an ex-officio member of the Council of the U. S. I. for many years, during which time he has always taken the closest interest in the progress and activities of the organisation. His consistent courtesy and assistance have been of the greatest possible help.

Sir Chandulal Trivedi, Secretary of the War Department, joined the Council of the United Service Institution early this year on the retirement of Sir Charles Ogilvie. He, too, has shown a keen interest in the work of the U.S.I.

New Members

The following new members have been elected to membership of the Institution during the past three months:

Arnold, K. S., Esq.,	Fagan, Lieut.-Colonel H.A., D.S.O.,
Ashfaq Ahmad, Khan Bahadur,	M.C.,
Banerjee, S.M., Esq., C.I.E., I.C.S.,	Fazal Muqem Khan, Captain,
Barr, Major J.S.,	Gillespie, Lieut. A.,
Benthall, Sir Edward, K.C.S.I.,	*Gurney, Captain A.R.,
Bireshwar Nath, Major.,	Hasted, Major-General W.F., C.I.E.,
Blakey, Captain C.O.,	C.B.E., D.S.O., M.C.,
Borwick, Captain P.H.E.,	Hollinghurst, Air Marshal L.N.,
Dawande, Captain M.G.,	C.B., C.B.E., D.F.C.,
*Dunnett, Major W.G.,	Hunt, Lieut. F.R.,
Easton, Lieut.-Colonel W.M.,	Lahiri, Major P.C.,

* Life Members.

Lewis, Lieut. E.H.S.,
 Loftus-Tottenham, Major-General F.J.,
 D.S.O.,
 Logan, Major R.,
 Mackie, Lieut.-Colonel E.G.,
 *Minto, Major W., M.C.,
 Moloney, Lieut.-Colonel W.J., E.D.,
 Montague, Captain G.P.,
 *Moore, Captain D.B.H.,
 Mumtaz Ali Khan, Lieut.-Colonel,
 Munro, Lieut. H.A.,
 Munro, 2/Lieut. H.P.
 Nahapiet, Major V.D.,
 Noronha, Major R.S., M.C.,
 Palmer, Captain K.M.,
 *Perkins, Lieut.-Colonel J.E.J.,

Perry, Lieut.-Colonel R.J.,
 Prem Kumar Sibal, Lieut.
 Rajaratnam, Major P.C.,
 Reid, Major J.E., E.D., I. P.,
 Renault, Captain K.,
 Scott, J.A., Esq., C.I.E., O.B.E., I.P.,
 Simonds-Gooding, Major H.,
 Smith, Captain R.A.P.,
 Smithwick, Colonel H.S.,
 Streatfeild-James, Commander E.C.,
 R.I.N.
 Tyson, Lieut. T.G.,
 Walters, Lieut.-Colonel H. de L.,
 Watson, D.G., Esq., C.I.E., I.P.,
 Watts, Colonel W.W., O.B.E.,
 Weippert, Major C.J.M.

Honours and Awards.

The following honours to members of the Institution have been announced :

C.B.E.—Brigadier J. F. D. Steedman, M.B.E., M.C., R.E., the late Major-General D.F.W. Warren, D.S.O., O.B.E.

O.B.E.—Lieut.-Colonel C. Mearns, R.I.A.S.C.; Lieut.-Colonel A.H. Phipps, Burma Intelligence Corps.

K.B.E.—Lieut.-General F.W. Messervy, C.B., D.S.O.

C.B.—Major-General D.T. Cowan, D.S.O., M.C.; Major-General D.D. Gracey, O.B.E., M.C.; Major-General D. Russell, D.S.O., O.B.E., M.C.

D.S.O.—Brigadier A. R. Barker, O.B.E., M.C.; Brigadier J. E. Hirst, 2 Punjab Regiment; Lieut.-Colonel L. P. Sen, 16/10 Baluch Regiment; Lieut.-Colonel S.P.P. Thorat, 2/2 Punjab Regiment; Lieut.-Colonel J.R.H. Tweed, M.B.E., M.C.

Bar to D.S.O.—Brigadier R.A. Hutton, D.S.O., O.B.E.; Brigadier E.J. Denholm-Young, D.S.O., 13 Frontier Force Rifles.

Gold Medal Essay Competition

Entries for the 1945-46 Competition must reach the Secretary by June 30, 1946. The subject selected for the next competition is: "CO-ORDINATION AND CONTROL IN PEACE AND WAR OF THE FORCES OF ALL THREE SERVICES, BRITISH AND DOMINION, IN THE INDIAN OCEAN AND NEIGHBOURING TERRITORIES."

The interdependence of the three Fighting Services, one upon another, was demonstrated time and again during the late war. The success achieved when the three have planned and operated with one object and under a unified direction has been remarkable. This has, however, tended to create a complicated system of command with large staffs.

Bearing in mind the necessity for the three Services to continue to train to operate as one whole, and the danger in peacetime of each retiring into its own watertight compartment, examine the possible ways of evolving from our own war experience a simplified system

of command which will ensure the closest inter-service co-ordination for the Commonwealth forces in peace and in war.

A definition of the geographical scope has been left to the essayist to develop.

Full details of the rules governing the Competition will be found elsewhere in this issue.

MacGregor Memorial Medal

Recommendations for the award of the MacGregor Memorial Medal should be submitted by May 1 of each year.

The MacGregor Memorial Medal was founded in 1888 as a memorial to the late Major-General Sir Charles MacGregor, who founded the United Service Institution of India. It is awarded for the best military reconnaissance or journey of exploration of the year.

The awards are made in June, and are: (a) For officers, British or Indian, silver medal, and (b) for soldiers, British or Indian, a silver medal with Rs. 100 as gratuity. For especially valuable work, a gold medal may be awarded in place of one of the silver medals, whenever the administrators of the Fund deem it desirable. The Council may also award a special additional silver medal, without gratuity, to a soldier, for specially good work.

The award of the medals is made by His Excellency the Commander-in-Chief, India, as Vice-Patron, and the Council of the United Service Institution of India, who were appointed administrators of the Fund by the MacGregor Memorial Committee.

Eligibility for the award is open to: (a) Officers and other ranks of all forces of the British Commonwealth of Nations while serving with the India Establishment, or with South East Asia Command. (b) Officers and other ranks of the Royal Indian Navy, Indian Army, Royal Indian Air Force and of the Indian States Forces, wherever serving. (The term "Indian Army" includes the Indian Auxiliary and Territorial Forces, Frontier Militia, Levies, Military Police and Military Corps under local governments.)

Personal risk to life during the reconnaissance or exploration is not a necessary qualification for the award of the medal: but, in the event of two journeys being of equal value, the man who has incurred the greater risk will be considered to have the greater claim to the award.

When the work of the year has either not been of sufficient value or notice of it has been received too late for consideration before the Council Meeting, the medal may be awarded for any reconnaissance during previous years considered by His Excellency the Commander-in-Chief in India to deserve it.

The medal may be worn in uniform by Indian soldiers on ceremonial parades, suspended round the neck by the ribbon issued with the medal. Replacements of the ribbon may be obtained on payment from the Secretary, United Service Institution of India, Simla.

Library

An extensive library is available for members of the Institution at the headquarters in Simla. Books may be loaned to members resident in India, and those borrowing works in person must enter particulars in the book provided. Members stationed outside Simla may receive books on application; they will be

sent post-free by registered parcel post, and must be returned within two months or immediately on recall. No more than three volumes may be issued at any one time. Reference books and works marked "Confidential" may not be removed from the library.

Members wishing to retain a work for more than two months should notify the Secretary to that effect. If, after the expiration of three weeks from the date of issue a book is wanted by another member, it will be recalled. Should a book not be returned within fourteen days of the date of recall, it must be paid for, the cost of lost or defaced books being refunded by the member to whom they were issued. Such volumes which have become out of print will be valued by the Executive Committee, the members being required to pay the cost so fixed.

The issue of a book to any member under the above rules implies the latter's agreement with the regulations.

Contributions to the Journal

Articles on matters of military, naval and air force interest are welcomed. They should not exceed 5,000 words in length, and preferably should run to 3,000 words. Contributions should be type-written, double spacing, and in view of the paper shortage, may be typed on both sides, providing a moderately thick paper is used.

Contributors unable to submit articles already typed may send them in manuscript form, and arrangements will be made for them to be typed in Simla, the small charge being deducted from the contributor's fee. Payment is made on publication, at rates up to Rs. 150 according to the value of the contribution.

All articles dealing with military subjects are submitted to the authorities before publication, for security reasons. Contributions may, if the author desires, appear under a pseudonym; in such cases, the name of the author remains strictly confidential. The right to omit or amend any part of an article is reserved by the Executive Committee.
